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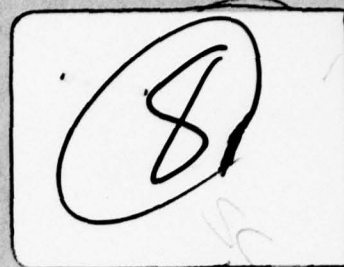
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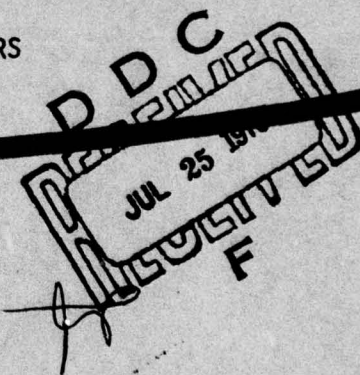
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CLIMATE FORECAST VERIFICATION VIA MULTINOMIAL STOCHASTERS

RUDOLPH W. PREISENDORFER



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# CLIMATE FORECAST VERIFICATION VIA MULTINOMIAL STOCHASTERS

Rudolph W. Preisendorfer

## 0. Introduction

In this work we develop a general approach to the problem of forecast verification in physical climatology. This problem has already been the subject of numerous studies (cf. e.g., Brier and Allen, 1951; Namias, 1953; Panofsky and Brier, 1958; and their references). We are encouraged to make another essay in this direction because these studies have only presented partial solutions of the problem by omitting essential stochastic elements; or if the latter were included, then the appropriate common geometric setting of the forecast and its realization (the predictand) was not developed. Moreover, some early studies of the problem have confused its formulation by introducing elements of subjectivity and qualitative reasoning into what is a matter requiring objectivity and quantitative reasoning.

In what follows we will take the point of view that both the forecast and its realization must be treated within the same quantitative framework: the *forecast* will be viewed as *the numerical specification of values that a geophysical field* (e.g., temperature, pressure, precipitation or some combination thereof) *will take, at some specified times in the future over a specified set of spatially distributed points*. The predictand field will be couched in precisely the same framework and so will be wholly commensurate with the forecast field. For example, if the predictand field is atmospheric pressure at  $n$  points of the U.S. mainland and the values of pressure are classified into  $r$  categories at each point, then so too will the forecast field be presented in  $r$ -tile form at each of these  $n$  points.

Moreover, in what follows we will solve the problem of finding a suitably general reference forecaster, i.e., a verifier against which the skill of all forecasters

can be gauged. We will do this by choosing the *stochaster* as a worthy competitor of the forecaster. That is, we choose a stochastic forecaster (a person or device) which is assigned precisely the forecast problem faced by its competitor, and proceeds in a purely random way to solve it: both forecaster and stochaster, each in his own characteristic way, must predict the future state of the same geophysical field over the same set of spatial points and same set of future times. *There is accordingly, in principle, a stochaster assignable to each forecaster whose efforts are to be verified.*

For us, then, a *verification* of a forecast consists of two parts, namely the application of: (i) *a quantitative measure of the degree of match between a given predictand and the forecaster's prediction; and (ii) a probability measure of attaining the same degree of match between the given predictand and the associated stochaster's prediction.* In every practical instance these two parts of the verification are required to be readily converted into tabular or graphical form. In particular the forecaster's skill may be depicted as a point (in a suitably dimensioned euclidean point- or subset-space) to which has been assigned a level of statistical significance via the performance of the competing stochaster at that same point. *Thus when two different forecaster's skills are to be compared, this must be done on the same geometric-probabilistic background, namely that of their common stochastic competitor.* In this way we can also solve the problem of comparing the relative merits of a wide range of possible different forecasters\* all attempting to predict the same geophysical field's configuration over the same space points and same set of future times. This, obviously, requires the appropriate cooperative preliminary arrangements by two or more forecasters to insure that their recorded efforts will fall into the common geometric-probabilistic verification framework.

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\* These can range from the simplest, such as the persisters and advectors, to the most advanced of current prediction strategies.



We will use our general approach to develop several of these frameworks so as to attain a hierarchy of ever-increasing stringency, appropriate parts of which may be adopted by each forecaster, who, as his mastery increases, can then apply ever more rigorous tests of his forecast skills. Moreover, it will be possible for him to compare his skills with those of other forecasters who attempt the same forecasts in a common framework, such as any of those given in the hierarchy below.

The general principles utilized in the present approach are of sufficient breadth so as to allow their extension to virtually every problem setting the climate forecaster may encounter. However, in the interests of brevity we will in this study explore only a specific class of stochasters, namely the class of multinomial stochasters. This class is already so broad that it will cover many, if not all, of the cases encountered in usual practice. Yet we should mention that there exist settings which require classes of stochasters that are not multinomial per se. For example, global skill scores for analog forecasts require stochasters that are not multinomial, but rather an immediate generalization of these, i.e., the multivectorial stochasters. It will be noted, however, that the verification principles (i), (ii) enunciated above are still applicable as guides to attain the appropriate forms of the match and significance quantities, now in the analog setting.

Having attained a general objective and quantitative overview of forecast verification, one can now go on to apply it in various ways to the practical aspects of economics and administrative problems contingent on sound forecasts and their verifications. These problems, of course, are beyond the immediate scope of this study and will be reserved for a future time. Yet we wish to make one important observation in this regard: if we possess an objective, quantitative verification system of adjustable stringency, such as that developed below, then it will always be possible to extract from it auxiliary quantitative, or even qualitative measures of forecast verification applicable to the specific needs of the less quantitative

fields of economics and administration. In other words, we can more easily, in such matters as these, descend the ladder from objectivity to subjectivity and from quantity to quality rather than ascend it, and we now possess the basis for such descents.

### 1. Forecaster vs the Mean Stochaster

The simplest form of competition between forecaster and stochaster uses the expected value of the stochaster's performance as a point of reference. This is exemplified in the popular form of the skill  $S_n$  given by the Heidke formula (Brier and Allen, 1951):

$$S_n = \frac{u - \bar{u}}{n - \bar{u}} \quad (1.1)$$

where  $u$  is the number of 0-class errors (number of correct predictions) made by the forecaster in a set of  $n$  forecasts, and  $\bar{u}$  is the expected number of 0-class errors made by the stochaster.

In viewing (1.1) within the framework of our verification principles (i) and (ii) defined in §0, the quantitative degree of match between predictand and prediction is  $u$ , but the probability measure associated with the stochaster is missing. The stochaster's mean  $\bar{u}$  is, of course, a statistical point of reference that serves in (1.1) to tell whether the forecaster has positive or negative skill according as  $u > \bar{u}$  or  $u < \bar{u}$ . But what is missing is some number (a confidence level, e.g.) that tells how much better or worse, respectively, the forecaster's efforts are than blind chance. Thus (1.1) serves only to tell whether one is doing better or worse than chance, but not by how much, in a probabilistic sense.

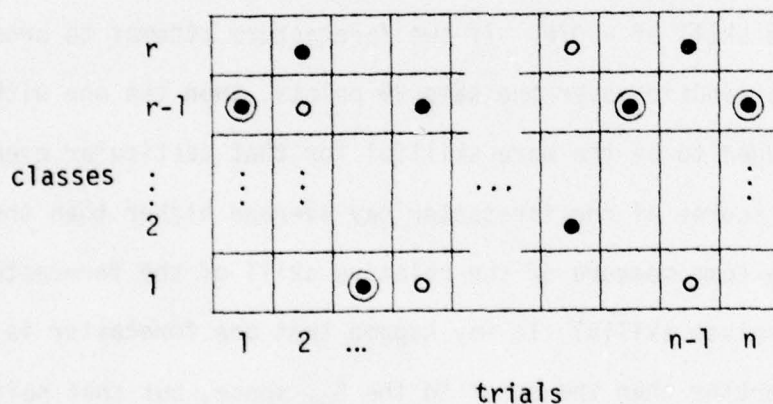
Consider, e.g., the lists of skill scores in Table 9. These may be associated

with the following hypothetical situation: A temperature field (say) is to be predicted over the U.S. mainland at 99 selected points (cf Fig. 1). Thus  $n=99$  in (1.1). The predictions are to be made by stating that, at each point, the temperature will be either above normal (A), normal (N), or below normal (B), where 'normal' is some previously established climatological mean. For this purpose the range of temperatures occurring in the record at each station is divided or partitioned into three equal classes (or intervals): one that contains the normal temperatures, and an interval each that contains the above normal and below normal temperatures. In this way the data have been 'terciled' at each point. Subsequently, the predictions are compared with the actual temperatures realized at each of the 99 points. Let  $u$  be the number of correct predictions (e.g., if A is predicted and A occurs, the prediction is correct). On the average, by chance, one would expect to guess  $1/3$  of the temperatures at the points, so that  $99 \times (1/3) = 33 = \bar{u}$  in (1.1). If, e.g.,  $u=41$ , then the skill  $S_{99}$  would be  $+0.121$ . If  $u=33$ , then  $S_{99}$  would be 0, while 28 correct would have a skill of  $-0.076$ . If two forecasters attempt to predict the same temperature distribution over the same 99 points, then the one with the higher  $S_{99}$  value may be judged to be the more skillful for that particular event. In the long run, the skill scores of one forecaster may average higher than the other, and hence  $S_{99}$  would give some measure of the relative skill of the forecasters. But what about their absolute skills? It may happen that one forecaster is in the long run uniformly better than the other in the  $S_{99}$  sense, but that neither is better at forecasting events than a thrown die attempting to do the same job! In what follows we shall explore the ideas inherent in this last observation, with the goal in mind of attaining one form of an absolute measure of skill against which forecasters' efforts may be pitted.



## 2. Forecaster vs the Binomial Stochaster

One way to improve on the skill score formula in (1.1) is to attach to  $S_n$  the missing statistical significance of the score. This is done by assigning to the forecaster's problem a competitive stochaster. For example, if the physical field has  $n$  points at which it is to be predicted, and the predictions consist in specifying one of  $r$  possible values at each point, then the associated stochaster takes the following form (in the preceding example,  $n=99$ ,  $r=3$ ): at each point the stochaster chooses randomly one of the  $r$  possible values. Hence the probability of choosing any one of the  $r$  values is  $1/r$ . At the next point he starts again and independently of his previous decision, the stochaster chooses randomly from the  $r$  possibilities at that point. He continues this way through all  $n$  points. Now imagine that the predictand is depicted as  $n$  appropriately distributed dots in the following abstract diagram of the prediction problem:



The open circles are forecasts by the stochaster. Sometimes he has a hit (circled dot) and sometimes not. Since his trials of choice are independent of each other, the probability of  $u$  correct predictions is  $(1/r)^u$ . The remaining  $n-u$  predictions are incorrect and have probability  $(1-\frac{1}{r})^{n-u}$  of occurring. The probability of this particular set of  $u$  correct and  $n-u$  incorrect predictions is  $(\frac{1}{r})^u (1-\frac{1}{r})^{n-u}$ . The total probability  $P_n(u)$  of  $u$  correct and  $n-u$  incorrect predictions, regardless of

which  $u$  dots are circled and which  $n-u$  are not, is given by

$$P_n(u) = \frac{n!}{u!(n-u)!} \left(\frac{1}{r}\right)^u \left(1-\frac{1}{r}\right)^{n-u} \quad (2.1)$$

where  $n!/u!(n-u)!$  accounts for the number of distinct ways the stochaster can achieve  $u$  correct predictions in the set of  $n$  dots. Eq (2.1) defines the performance of the *binomial stochaster*: He can have only two outcomes: correct prediction, or wrong prediction.

This probability function supplies the missing information needed in the use of (1.1) to gauge how much better are the forecaster's efforts than the stochaster's. For example, Table 10 lists\* values of  $P_{99}(u)$  and its cumulative probability function

$$Q_{99}(u) = \sum_{j=0}^u P_{99}(j) \quad (2.2)$$

for the case  $n=99$  and  $r=3$ . By (1.1) we can find the values of skill  $S$ , now associated with  $u$  and  $\bar{u}$  for the case  $n=99$ . Thus comparing Tables 9, 10, we see that skill scores of (say)  $+1.06$  or greater are statistically significant at the 95% level. The column '1' in Table 10 corresponds to the  $u$  column in Table 9. Another index of skill in Table 9 is the critical ratio (where  $\sigma$  is the standard deviation):

$$C_{99}(u) = \frac{u-\bar{u}}{\sigma}$$

which is closely related to the approximating gaussian distribution to (2.1) for large  $n$ . The skill number  $S_n$  or the critical ratio are evidently but two of an infinite number of equivalent apparent-skill indicators. Moreover this skill  $S$  as reckoned by (1.1) changes with  $\bar{u}$  and  $n$ , so that  $+1.06$  need no longer be associated with statistical significance at the 95% level.

The main observation to make here is that *skill numbers like the critical ratio  $C_{99}(u)$  or like  $S_{99}=S(u,\bar{u},99)$  are by themselves not the true indicators of forecasting skill*. The true indicators (relative to the competing stochaster) are given

\* See Preface to Tables 10-15, just before them.

via the cumulative probabilities  $Q_{99}(u)$ . Thus, associated with  $u=40$  is  $Q_{99}(u)=.9433$ , (of Table 10) which says that 94.33% of the stochaster's predictions are below 41 correct. Or putting it another way, for every 100 tries by the stochaster to attain 41 or more correct predictions at 99 points, only  $100 - 94.33 = 5.67$  times (on the average) will he be able to do so. Hence if a forecaster *consistently* obtains  $u=41$  or more as a score in the present experimental setting, he is doing well relative to the stochaster, i.e., blind chance.

There is an important point illustrated here which is perhaps too implicitly buried in part (ii) of the verification principle of §0 and which we now draw out in detail: in practice the stochaster works very hard at establishing his level of performance; experiment after experiment (under fixed conditions) goes by as he gradually establishes empirically the  $P_n(u)$  distribution which we so glibly assembled, by logical argument, in (2.1). In an identical practical sense, *a forecaster's true skill emerges only after a sufficient number of experiments have determined (under fixed conditions) his own  $P_n(u)$  distribution relative to that of the stochaster.* If the forecaster is consistently skillful, his 'scatter diagram' of predictions, when superimposed on that of the stochaster, will show some distinctive and favorable form of departure from the latter. This will be illustrated in some discussions below.

### 3. Forecaster vs the Trinomial Stochaster (unsigned errors)

The next step up the ladder of ever more potentially stringent verification tests brings us to the trinomial stochaster. Returning to the diagram in §2 we now look not only at the correct number of predictions by the forecaster and stochaster, but also the number of 1-class, 2-class, ...,  $(r-1)$ -class errors they may commit. A *j-class error*,  $0 \leq j \leq r-1$ , is committed if the prediction circle and predictand dot are in classes whose indexes differ by  $j$ . For example a 0-class error ( $j=0$ ) is a



correct prediction, a 1-class error ( $j=1$ ) is a miss by one class. Clearly, for an  $r$ -tile classification of the predictand values, there can be up to  $(r-1)$ -class errors.

A *trinomial stochaster* is a stochaster whose scores are registered in three categories, namely as 0-class errors, 1-class errors, and  $\bar{2}$ -class errors. The latter are all errors of class 2, 3, ..., up to  $r-1$ , lumped together. We thus see that the trinomial stochaster is the next step higher than the binomial stochaster; the latter's scores are registered as 0-class errors and  $\bar{1}$ -class errors, where the latter are all errors of class 1, 2, ...,  $r-1$ , lumped together.

We can determine the probability  $a_j$  that a stochaster may commit a  $j$ -class error, as follows. Clearly  $a_0 = 1/r$ . Another way to see this is to reckon  $a_0$  as:

$$a_0 = \sum_{i=1}^r (\text{prob. that stochaster chooses cell } i) \times (\text{prob. that predictand is in cell } i)$$

$$= \sum_{i=1}^r \frac{1}{r} \times \frac{1}{r} = \underbrace{\frac{1}{r^2} + \frac{1}{r^2} + \cdots + \frac{1}{r^2}}_{r \text{ terms}} = \frac{1}{r}$$

Continuing in this way:

$$a_1 = \sum_{i=1}^r (\text{prob. that stochaster chooses cell } i) \times (\text{prob. that predictand is in cell } (i-1) \text{ or cell } (i+1))$$

$$= \frac{1}{r} \left( \frac{1}{r} \right) + \underbrace{\frac{1}{r} \left( \frac{1}{r} + \frac{1}{r} \right) + \cdots + \frac{1}{r} \left( \frac{1}{r} + \frac{1}{r} \right)}_{(r-2) \text{ terms}} + \frac{1}{r} \left( \frac{1}{r} \right)$$

$$= \frac{2(r-1)}{r^2}$$

Again,

$$\begin{aligned}
 a_2 &= \sum_{i=1}^r (\text{prob. that stochaster chooses cell } i) \times (\text{prob. that predictand is} \\
 &\quad \text{in cell } (i-2) \text{ or cell } (i+2)) \\
 &= \frac{1}{r} \left(\frac{1}{r}\right) + \frac{1}{r} \left(\frac{1}{r}\right) + \underbrace{\frac{1}{r} \left(\frac{1}{r} + \frac{1}{r}\right) + \cdots + \frac{1}{r} \left(\frac{1}{r} + \frac{1}{r}\right)}_{(r-4) \text{ terms}} + \frac{1}{r} \left(\frac{1}{r}\right) + \frac{1}{r} \left(\frac{1}{r}\right) \\
 &= \frac{2(r-2)}{r^2}
 \end{aligned}$$

From these we can guess the general pattern for the probability  $a_j$ , namely:

$$a_j = \frac{2(r-j)}{r^2}, \quad 1 \leq j \leq r-1. \quad (3.1)$$

This may be checked, and a formal proof devised, by considering in detail, e.g., the cases for  $r = 6, 7$ . Another check consists in seeing that the sum of the  $a_j$  is unity

$$a_0 + \sum_{j=1}^{r-1} a_j = \frac{1}{r} + \sum_{j=1}^{r-1} \frac{2(r-j)}{r^2} = 1$$

As an example, if  $r=3$ , so that we tercile the field values at each point, then

$$a_0 = 1/3, \quad a_1 = 4/9, \quad a_2 = 2/9.$$

Now suppose that, in the context of the diagram of §2, the stochaster makes  $n$  predictions. Let  $u, v, w$  be the resulting number, respectively, of 0-class, 1-class, and 2-class errors. The probability of committing each type of error singly at a time is, respectively  $a_0, a_1$ , and  $a_2 (=1-(a_0+a_1))$ . Hence the joint probability of  $u, v, w$  is





The scores of the trinomial stochaster are represented as triples  $(u,v,w)$  of integers  $u,v,w$  which sum to  $n$ . Hence the set of all possible scores lies on the finite triangular portion of the inclined plane through the three  $n$ -points on each axis. The probability of each score is given by (3.2). A perfect score is one for which  $u=n$  and  $v=w=0$ , i.e., the point on the  $u$ -axis, a distance  $n$  from the origin. The worst score is the  $n$ -point on the  $w$ -axis, and a score of intermediate skill is the  $n$ -point of the  $v$ -axis. The stochaster, after many experiments of length  $n$ , each experiment resulting in a triple  $(u,v,w)$ , begins to accumulate a cloud of points on the inclined triangle and centered on the average point  $(\bar{u}, \bar{v}, \bar{w}) = (na_0, na_1, na_2)$ . For example, if  $n=99$ , and we choose terciles (so that  $r=3$ ), then  $(\bar{u}, \bar{v}, \bar{w}) = (33, 44, 22)$ .

#### 4. Forecaster vs the Trinomial Stochaster (signed errors)

Suppose we are not only interested in the number of  $j$ -class errors committed by a forecaster, but also whether his errors were above or below the predictand mark. That is, e.g., if the predictand in a tercile classification were 'N', and the forecast error were of class 1, we would like to know specifically if it were either A or B. We now design a stochaster that will score a forecaster on the basis of such 'signed' errors. In this manner we supplement the significance tests of §3 by giving a way whereby we can determine if the forecaster tends on the average to over-or-undershoot the mark.

After going through the derivations of §3, the present derivation is relatively simple. (Refer to the first diagram of §2.) A *positive* [*negative*]  $j$ -class error  $1 \leq j \leq r-1$  is committed if the prediction circle lies  $j$  indexes above [below] the predictand dot. For example, if the circle is in class 3 while the dot is in class 1, there is a positive 2-class error. Patterning our reasoning on that in §3A, we can see that  $a_j(+)$ , the probability of a positive  $j$ -class error, is

$$a_j(+) = \frac{(r-j)}{r^2} \quad 0 \leq j \leq r-1 \quad (4.1)$$

and similarly

$$a_j(-) = \frac{(r-j)}{r^2} \quad 0 \leq j \leq r-1 \quad (4.2)$$

is the probability of a negative  $j$ -class error. For example, if  $r=3$ , then  $a_0=1/3$ ,  $a_1(+)=a_1(-)=2/9$ ,  $a_2(+)=a_2(-)=1/9$ .

Our test for predictive symmetry in forecasting is supplied by the trinomial stochaster whose elementary probabilities are

$$a(0) = 1/r \quad (4.3)$$

$$a(+) = \sum_{j=1}^{r-1} a_j(+) = \frac{1}{2}(1 - \frac{1}{r}) \quad (4.4)$$

$$a(-) = \sum_{j=1}^{r-1} a_j(-) = \frac{1}{2}(1 - \frac{1}{r}) \quad (4.5)$$

Here  $a(0)$  is the probability of a 0-class error.  $a(+)$  gives the probability of a positive-class error, while  $a(-)$  is the probability of a negative-class error. The joint probability  $p(u(0), v(+), v(-))$  of  $u(0)$  0-class errors,  $v(+)$  positive-class errors and  $v(-)$  negative-class errors incurred in a set of  $n$  independent trials by the stochaster is

$$p(u(0), v(+), v(-)) = \frac{n!}{u(0)!v(+)!v(-)!} [a(0)]^{u(0)} [a(+)]^{v(+)} [a(-)]^{v(-)}$$

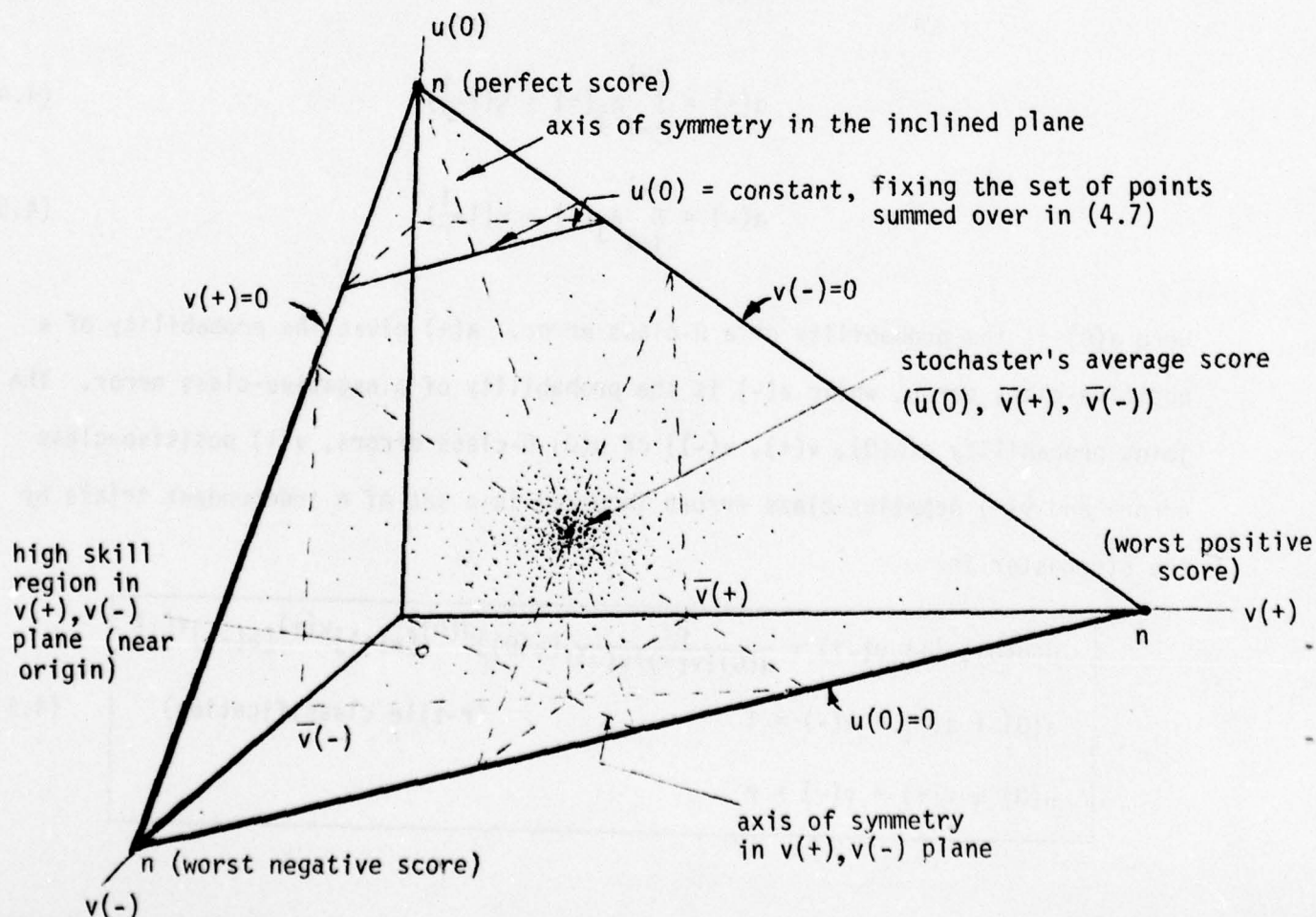
$$a(0) + a(+) + a(-) = 1 \quad (r\text{-tile classification}) \quad (4.6)$$

$$u(0) + v(+) + v(-) = n$$

It may be verified that we recover the form of  $p_n(u)$  of (2.1) if we fix  $u(0)$  and sum  $p(u(0), v(+), v(-))$  over all possible values of  $v(+), v(-)$ . That is, suppose we fix  $u(0)$ ; then

$$p_n(u(0)) = \sum_{v(+)=0}^{n-u(0)} p(u(0), v(+), n-(u(0)+v(+))) \quad (4.7)$$

The process of summation may be visualized in the diagram below which gives an overview of the trinomial stochaster's domain.





We now have an axis of symmetry in the stochaster's domain, either on the tipped triangular area or in the  $v(+)$ ,  $v(-)$  plane, about which the stochaster's scores lie. For example, the expected (average) scores of the stochaster for the case  $n=99$ ,  $r=3$  are  $(na(0), na(+), na(-)) = (33, 33, 33)$ .

#### 5. Forecaster vs the Multinomial Stochaster; (the concept $\chi^2$ )

We will now explicitly consider more than three  $j$ -class errors in our search for the significance of forecaster skills. Of course, we can no longer visualize the skills in simple geometric diagrams, but we gain instead a useful parameter, the  $\chi^2$  value, belonging to the forecaster's performance. We shall turn this parameter back into our preceding analyses to help solve the problem of ordering the skills when given in trinomial form. Thus the following excursion into the domain of the multinomial stochaster, while of possible interest in later studies, is actually our present means of introducing, in a natural way, the  $\chi^2$  quantity into the theory of the trinomial stochaster.

We return to the first diagram of §2 and let the stochaster perform an experiment of  $n$  independent prediction trials. Let  $u_0, u_1, \dots, u_{r-1}$  be respectively the number of 0, 1, ...,  $r-1$  class errors he commits in that experiment. Let  $a_0, a_1, \dots, a_{r-1}$  be the elementary probabilities that he commits such errors, respectively. Values for these were derived in §3. Therefore we can in principle compute the joint probability for the  $r$  values  $u_j$ :

$$p(u_0, u_1, \dots, u_{r-1}) = \frac{n!}{u_0! u_1! \dots u_{r-1}!} a_0^{u_0} a_1^{u_1} \dots a_{r-1}^{u_{r-1}}$$

$$u_0 + u_1 + \dots + u_{r-1} = n$$

( $r$  - tile  
classification)

(5.1)

$$a_0 + a_1 + \dots + a_{r-1} = 1$$

By approximating the factorials in this expression, using Sterling's formula, by writing

$$'x_j' \text{ for } \frac{(u_j - na_j)}{(na_j)^{1/2}}, \quad (5.2)$$

and by making some further algebraic reductions, we find that, to good approximation,

$$p(u_0, u_1, \dots, u_{r-1}) = (2\pi n)^{(1-r)/2} (a_0 a_1 \dots a_{r-1})^{-1/2} \exp\{-\frac{1}{2} \sum_{i=0}^{r-1} x_i^2\} \quad (5.3)$$

In this way we condense all the  $j$ -class scores  $u_j$  into a single number of the form

$$\chi^2 \equiv \sum_{i=0}^{r-1} x_i^2 = \sum_{r=0}^{r-1} \frac{(u_j - na_j)^2}{na_j} \quad (5.4)$$

This quantity, as is well known,\* is governed by the  $\chi^2$ -distribution (using our  $r$ -tile notation):

$$T_{r-1}(\chi^2) d(\chi^2) = \frac{(\chi^2)^{(r-3)/2} e^{-1/2 \chi^2}}{2^{(r-1)/2} \Gamma(\frac{r-1}{2})} \cdot d(\chi^2) \quad (5.5)$$

Since the  $u_j$  are constrained to add up to  $n$ , there are only  $r-1$  degrees of freedom associated with (5.5).

For example, let  $n=99$ ,  $r=3$  and consider the signed errors of §3. Then  $a_0=1/3$ ,  $a_1=4/9$ ,  $a_2=2/9$ , and we now have

$$\chi^2 = \frac{(u-33)^2}{33} + \frac{(v-44)^2}{44} + \frac{(w-22)^2}{22} \quad (5.6)$$

and

$$T_2(\chi^2) d(\chi^2) = \frac{1}{2} e^{-1/2 \chi^2} d(\chi^2)$$

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\* See, e.g., Kenney, J. F., 'Mathematics of Statistics' (part two), D. Van Nostrand Co. N.Y. (1947) (7th printing). p167 has a particularly clear derivation of the  $\chi^2$  distribution's form from (5.3).

In this case we have two degrees of freedom.

Equation (5.6) gives the probability of occurrence of all those triples  $(u,v,w)$  with  $\chi^2$  values in the range  $(\chi^2 - \frac{1}{2}d(\chi^2), \chi^2 + \frac{1}{2}d(\chi^2))$ . Since (as we shall see below) the set of all  $(u,v,w)$  having exactly some fixed  $\chi^2$  value generates an ellipse in the  $uv$  plane of the diagram of §3, (5.6) gives the element of probability that the triples lie in an elliptical annulus defined by  $\chi^2 \pm \frac{1}{2}d(\chi^2)$ .

The approximation (5.6) must be examined for accuracy in our present work on the trinomial stochaster. This will be done in detail below (§7). But for the moment, we can view (5.6) as a possible tool for ranking the skill of a forecaster. In general, for a specified  $n$ ,  $a_0$ ,  $a_1$ ,  $a_2$ , we can form the quantity

$$\chi^2 = \frac{(u-\bar{u})^2}{\bar{u}} + \frac{(v-\bar{v})^2}{\bar{v}} + \frac{(w-\bar{w})^2}{\bar{w}} \quad (5.7)$$

where

$$\bar{u} = na_0, \bar{v} = na_1, \bar{w} = na_2$$

and compute the probability of the value  $\chi^2$  associated with  $(u,v,w)$ . One might expect that of two forecasts, the one with the greater  $\chi^2$  value is the better, since its  $u,v,w$  values would depart on the average more from the mere chance values  $\bar{u}, \bar{v}, \bar{w}$  than the other forecast. Unfortunately, this is not generally correct. Mere departure from the chance point  $(\bar{u}, \bar{v}, \bar{w})$  in the triangular score plane of §3 is not enough to insure high skill. As we have seen, triples near the point  $(n, 0, 0)$  are to be preferred by an ambitious forecaster. How to rank the skill value of points in the  $uv$  plane is an important and to some extent an elusive problem. It will be taken up next.



## 6. The Problem of Ranking Forecasting Skill in the Context of Trinomial Stochasters

We shall, in the present context of trinomial stochasters, explore several ways, all more or less objective, in which we can make a judgment that a forecast is good or bad.

### A. $\chi^2$ Ellipses and their associated probabilities

As we saw in §5, the  $\chi^2$  value associated with a performance triple  $(u,v,w)$  resulting from a forecast can in turn have an ellipse and a probability associated with it. Without going through all the mathematics (given in §7, below) we can understand the connection between the ellipse and its probability, as follows.

Let  $T$  be the set of all possible triples  $(u,v,w)$ ,  $0 \leq u,v,w \leq n$ , enclosed by the scoring pyramid of §3. Since  $u,v,w$  can take on only integral values between 0 and  $n$  inclusive, there are, in all, exactly  $(n+1)(n+2)(n+3)/6$  such triples in  $T$ . (For example, in the case of  $n=99$ , the number of triples is 171,700.) Fortunately, we need not work with all these triples in  $T$ , by virtue of the sum constraint  $(u+v+w=n)$  on them. We may thus restrict our attention to a subset of them, say the  $u,v$  plane. This has only  $(n+1)(n+2)/2$  points of interest (for example, in the case of  $n=99$ , the number of  $(u,v)$  pairs is 5050). Each of these points may be envisioned (cf the diagram in §3) as the projection of the triple  $(u,v,w)$ , in the triangular plane, down onto its correspondent  $(u,v)$  in the  $uv$  plane. Some observations follow.

1) To each projected point  $(u,v)$  in the  $uv$  plane we may uniquely assign the probability of its associated point  $(u,v,w)$ , as given by (3.2). For example by Table A (with  $a_0 = 1/3$ ,  $a_1 = 4/9$ ,  $a_2 = 2/9$ ,  $n=99$ ) the point  $(33, 33, 33)$  has the probability .00017 and we assign this probability to  $(33, 33)$ . The point  $(33, 44, 22)$  (the 'average' point) has probability .00880, and we assign this to  $(33, 44)$ . Thus every point  $(u,v)$  in the  $uv$  plane has a probability, namely that of the unique point  $(u,v, n-(u+v))$  above it on the triangular plane.

2) To every point  $(u,v)$  in the  $uv$  plane there is assignable via (5.7) a

unique  $\chi^2$  value, namely that of the unique point  $(u, v, n - (u+v))$  above it (For example, for  $n=99$ , and  $r=3$ , with  $a_0=1/3$ ,  $a_1=4/9$ ,  $a_2=2/9$ , the point  $(33,33)$  has  $\chi^2 = 8.2500$ , and the point  $(33,44)$  (the 'average' point) has  $\chi^2 = 0$ ). The set of points  $(u,v)$  in the  $uv$  plane having a  $\chi^2$  value not exceeding  $\chi_0^2$  form an approximately elliptical region about  $(\bar{u}, \bar{v})$ , the average point, as center and with a well defined total probability. (For example, with  $n=99$ ,  $r=3$ ,  $a_0=1/3$ ,  $a_1=4/9$ ,  $a_2=2/9$ , if we set  $\chi_0^2 = 1.4621$ , it turns out that there are about 79 points within the ellipse associated with  $\chi_0^2$  (see Fig. 24) and moreover the sum of the probabilities of these 79 points, each probability reckoned via (3.2), comes to .50206.) Thus to each value of  $\chi^2$  we have assignable a probability, namely the sum of all probabilities of the points caught within the elliptical region defined by  $\chi^2$ .

3) Examples of the  $\chi^2$ -ellipses may be seen in Figs 26, 27, 28, 29. In particular, in Fig 26 we show the six ellipses associated with probabilities .50, .80, .90, .95, .98, .99 for the case of  $n=99$ ,  $r=3$ , and  $a_0=1/3$ ,  $a_1=4/9$ ,  $a_2=2/9$ . Thus, the outermost ellipse contains 99% of all the probability mass generated by the stochaster: that is, if the stochaster makes a large number, say 100 experiments at forecasting tercile values at 99 points with basic probabilities for 0, 1-, and 2-class errors given by  $1/3$ ,  $4/9$ ,  $2/9$ , respectively, then on the average, 99 of his performance pairs  $(u,v)$  will fall within the ellipse. The ellipses in Fig 27 may be described in the same way, but now for the case  $n=99$ ,  $r=5$  (i.e., quintiles) for which  $a_0=1/5$ ,  $a_1=8/25$ ,  $a_2=12/25$ .

#### B. Various performance regions in the trinomial domain

We now may consider the problem of ranking skill scores, or of grouping them into regions of high or low skill. To fix ideas, consider Fig 2 which depicts the trinomial domain for the case of unsigned tercile errors (§3) in which  $n=99$ ,  $a_0=1/3$ ,  $a_1=4/9$ ,  $a_2=2/9$ .  $u$  is measured along the horizontal axis,  $v$  along the vertical axis. The average point is  $(\bar{u}, \bar{v}, \bar{w}) = (33, 44, 22)$ . Point 0 is the projection  $(33, 44)$  of

this point on the  $uv$  plane. The line  $d-d$  therefore separates the total triangular region into two parts: those points  $(u,v)$  such that  $u > 33$  (have positive skill  $S_{99}$ ; cf (1.1)) and those points such that  $u < 33$  (have negative skill  $S_{99}$ ).

1) Suppose in Fig 2 we consider the region bounded by  $d-d$ , the heavy portion of the 95% ellipse, the  $u$  axis, and the diagonal line  $w=0$ . This is a roughly triangular region with a portion of an elliptical region removed. Any point  $(u,v)$  in this region has an associated  $\chi^2$  for which its probability is not less than .95. Hence we may at first believe that points in such a region are statistically significant. Of course, this is a matter of definition. However, we may not wish to consider points on or near  $d-d$  in this region as indicative of great skill in forecasting. For while such points may occur very infrequently (about  $2\frac{1}{2}\%$  of the time) a point such as  $(33,20)$  with only 33 correct predictions and 20 1-class errors (and hence 46 2-class errors) strikes one as indicative of rather mediocre skill. Nevertheless the region so defined is a candidate for high skill, and we can propose it for further study.

2) Consider next the triangular region in Fig 2 bounded by the line  $c-c$ , the diagonal line ( $w=0$ ) and the  $u$ -axis. Call this region 'A'. Recalling our discussion in §2, we know that a score  $(u,v)$  with  $u > 41$  occurs only 5% of the time during a stochaster's attempts to predict. That is, the set of all points  $(u,v)$  in the domain with  $u > 41$  has associated with it a total probability mass of .05. Notice, however, that there are points  $(u,v)$  along the dashed portion of  $c-c$  that fall rather deep within the 95%  $\chi^2$ -ellipse. These particular points are clearly not significant on the 95% level relative to the partitioning of the plane by  $\chi^2$ -ellipses.\* This shows that using only  $u$  values to judge a skill (as in §2) may lead us to misjudge that skill. If we choose that subset of the total triangular

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\* Observe that there are many subsets of the total trinomial domain whose points have a total probability mass of nearly .95. The complement of A and the 95% ellipse under discussion are but two such subsets. One determines the confidence level of a subset by simply totaling the probability mass within it using Table A.



domain consisting of the smaller triangular region A bounded by c-c, less the segment of the 95%  $\chi^2$ -ellipse, we would then have a set of points (u,v) associated with relatively high skill. The statistical significance of the subset would be slightly larger than 95%. (The exact increment of the value, which is near 1%, is not of interest here. It would be found by adding up the probabilities of the points in the elliptical segment removed from the c-c triangular region A. This can be done with the help of Table A.) Thus we have another well-defined candidate for a high-skill region, this one a bit more stringent than in 1) above.

3) The horizontal dashed line b is formed by cutting the pyramidal solid with a plane parallel to the uw plane at a value of v equal to 52, which is the 95% level for a binomial distribution\* with probability of success equal to 4/9, i.e.,  $a_1$  of §3. The inclined dashed line b is formed by cutting the pyramidal solid with a plane parallel to the uv plane at a value of w equal to 29, which is the 95% level for a binomial distribution\* with probability of success equal to 2/9, i.e.,  $a_2$  of §3. Together with the heavy portion of the 95% ellipse, these lines (even though they are generous in their restrictions) define a region of high skill somewhat more stringent than the preceding region. Obviously, a still more stringent region is that defined by a-a, since it contains still less probability mass within its region. Similar regions are defined in Fig 3 for the case of  $r=5$ .

#### C. Examples of performance by forecasters

1) Sprinkled throughout the domain of Fig 2 are fourteen points representing the scores of a forecaster denoted by 'A' in Table 1. These scores are the results of actual forecasts of temperature over the 99 points of the U.S. mainland depicted in Fig 1. For example, according to Table 1 the predictions of Winter '74 yielded  $u=42$  correct predictions,  $v=37$  1-class errors and  $w=20$  2-class errors, and the associated (u,v) pair is denoted by '1' in Fig 2. Observe that point 1 is not

\* See binomial probability Tables 11, 12.

significant in any of the three senses 1) - 3) defined above. Neither is point 7, associated with the summer of '75, significant. There are five points 2, 3, 9, 10, 14 that have negative skill and which, moreover, are not significant relative to the 95% contour. The set of six points 4, 5, 6, 8, 11, 12, however, are outside the 95% contour and are situated in high skill regions. In particular the three points 8, 6, 12, especially the latter two, are outstanding forecasts. Point 12, the second most outstanding of them all, was the temperature forecast of the infamous winter of '77. These points are outstanding because they have relatively high  $u$  values (number of correct predictions). Moreover their 2-class errors are very small by virtue of being situated near the  $w=0$  line. In general we may say that the higher the  $u$  value and the smaller the  $w$  value the better the skill. But there are exceptions, and we shall explore this situation at the appropriate time later in this study (cf §6E).

2) Another way of looking at Forecaster A's performance is shown in Fig 4. Here the same fourteen points are displayed in the signed-error domain, as defined in §4.  $v(-)$ ,  $v(+)$  are along the horizontal and vertical axes, respectively. The regions of various stringency are defined as explained in the diagram. Thus the area of least stringency is defined by the axes and the line  $d-d$ . Here we are asking the Forecaster to merely perform better than chance in obtaining the number of correct scores  $u$  which are measured along the axis normal to the diagram. Recalling the perspective view of the scoring plane in §4, it is clear that the closer in toward the origin a forecaster's score lies, the better is his effort. Notice that Forecaster A's two outstanding performances (points 6, 12) stand closest to the origin. The scattering of the fourteen points is generally well balanced: six are in the overshoot region (above axis  $x$ ), eight are below, indicating that Forecaster A's performance is generally not to over or under estimate in his forecasts. In this frame, eight points are considered significant and are circled. They all lie in the region bounded by the axes,  $c-c$ , minus the area in

the 95% ellipse. The region of highest stringency, that bounded by a-a, the 95% ellipse, and the axes, has only three points, 5, 6, 12. This situation should be compared with that of the three points 8, 6, 12 caught in the a-a region of Fig 2. This shows that measures of forecast significance, even in the present relatively objective setting, are near, but not quite, absolute. However, a way of ranking every pair of forecasts will be given below, and which can help remove this ambiguity (cf §6E).

3) The diagrams in Figs 3, 5 are exactly analogous to those in Figs 2, 4, but now for the quintiled-data case. These diagrams have been included here to point up the remarks made earlier that the trinomial scheme of gauging the skill of a forecaster can be made arbitrarily stringent. For example, according to Table 13, for the case of a binomial stochaster with probability of success  $1/5$ , the 95% level of performance is 26 correct predictions out of 99. But suppose in such a quintiled setting we still demand 41 correct (as in the terciled setting of Table 10) to be the mark of a good forecaster. It is seen that  $u=41$  in the context of Table 13 is virtually an impossibly high performance for a *stochaster*. However for an expert competing *forecaster*,  $u=41$  in a quintile setting may not at all be impossibly high; it simply would set a relatively higher demand on that forecaster whose method has reached a state of development in which the terciled setting is not sufficiently stringent, not much of a challenge. This stringency manifests itself in Fig 3 by the closer proximity to the origin of the nested set of elliptical contours. Now, to get to the high  $u$ , low  $w$  places, the forecaster must exert himself considerably more to rise out of the bull's-eye of mediocrity.

#### D. Examples of forecaster vs stochaster

We shall now compare the relative performances of forecasters and stochasters in actual experiments at prediction of temperatures and precipitations over the U.S. mainland.



1) Table 1 gives performances of Forecaster A in terms of unsigned scores  $(u, v, w)$  and also in terms of signed scores  $(u(0), v(+), v(-))$ , as defined in §§3,4. For example, the prediction scores of Forecaster A for the winter of '74 are  $(42, 37, 20) = (u, v, w)$  for the unsigned errors and  $(42, 13, 44) = (u(0), v(+), v(-))$  for the signed errors. The pertinent connections between these errors are given below the table. Thus  $v(+)$  is the sum of the positive 1- and 2-class errors, while  $v$  is the sum of the 1-class errors of positive and negative type. In a similar way we can interpret the remaining Tables 2, 3, 4 for forecasters B, C, D, respectively. All four forecasters were engaged in predicting the temperatures at the 99 points (of Fig 1) over the U.S. mainland for the fourteen seasons listed. These are summarized in Figs 7, 8, 9, 10. The results of their performances in predicting precipitation are summarized graphically in Figs 11, 12, 13, 14, and are tabulated in Tables 5, 6, 7, 8.

2) These latter four figures (11, 12, 13, 14) are worth studying in detail. A first impression is that Forecasters A and B are considerably superior to Forecasters C and D in forecasting precipitation. Of the latter two it appears that D has more points of positive skill than C. Forecaster C has no points in any of the areas of high skill defined in §§ B, C above. Similarly for D, who just barely has a significant point (no. 3) to show for his efforts. Forecasters A and B, however, each have seven significant points: 2, 3, 4, 5, 8, 9, 10 for A and 1, 3, 4, 5, 10, 11, 12 for B. It is remarkable that four of the points they share, namely 3, 4, 5 and 10 lie in just about the same places in each diagram. Also note that each has a common point, namely 7, nearly dead center on the bull's-eye, meaning, of course, a shared poor prediction (the winter of '76). This leads us to conjecture that Forecasters A, B and Forecasters C, D belong to two different classes of ability, and each one in each group is comparable in skill to the other, namely A and B are of comparable skill while C, D are of comparable skill.

3) Turning to Figures 7, 8, 9, 10, we compare the skills of the same four forecasters, now in their attempts to predict temperatures over the 99 U.S. mainland points and over the fourteen seasons listed in Tables 1, 2, 3, 4. Once again Forecasters A, B show definite superiority over C, D. Indeed, Forecasters A, B each have six significant points in high skill areas: Forecaster A has points 4, 5, 6, 8, 11, 12 while B has points 3, 7, 8, 10, 11, 12. Forecaster A showed extraordinary skill at point 6 (spring '75), while B showed such skill at point 3 (summer '74). Forecaster C has points 5, 10, 13 as significant above the 95% level using the  $\chi^2$  criterion. However, observe that these are all of negative skill, showing that a high  $\chi^2$  value (such as may be encountered in a contingency table of classified observations and predictions) does not necessarily mean high skill. Forecaster D has point 10 above the 95% level, but its u value and v value are undistinguished.

4) In Figures 15, 16, 17, 18, the same temperature skills in Tables, 1, 2, 3, 4 for the four forecasters are plotted, now using signed errors (§4). Thus the information in Fig 7 for A is viewed in a new way in Fig 15. The first impression is that Forecaster A tends to have balanced forecasts on the whole: the number of over estimates above the symmetry axis is six while those below are eight. Forecaster B has the same split but in the opposite sense. To help judge the quality of skill of forecasters B, C, D, the reader may wish to lightly sketch in various regions of high skill, as defined in Fig 4, on the appropriate diagrams. The temperature skills viewed via signed errors in Figs 17, 18 are completely undistinguished. Forecaster C seems to have a scattering of eight significant points, but observe that they are not in the high skill areas. Once again, statistical significance in the  $\chi^2$  value doesn't imply quality forecasts.

5) The reader may by now have surmised that forecasters C, D are actually stochasters. We shall describe how they made their predictions.

Stochaster C had five dice before him. The faces that normally had numbers '1' and '2' were marked with 'B', the faces on each die normally marked with '3',

'4', had 'N', and the faces normally marked with '5', '6' had 'A' in the case of temperature predictions. For precipitation 'A,N,B' were replaced by 'L,M,H'. To make a set of five predictions, the stochaster threw all five dice on a smooth flat table.\* The symbols on the scattered dice were always read from left to right and recorded. Each such throw therefore produced five random predictions. The throws continued until an accumulation of 99 predictions had been made. Each of these 99 predictions was then compared with its correspondent for the particular season under study whose actual temperatures or precipitations (in tercile form) had been compiled and listed beforehand for each of the 99 stations. From this point-by-point comparison, the class errors were calculated and tabulated. This process of throwing dice and comparing these results with each of the 99 observed field values was repeated until all seasons had been gone through for each set of temperature and precipitation data.

Stochaster D had before him an urn containing nine white balls. Three of the balls had the symbol '0' inscribed on them; two had '+1', two had '-1'; and one had '+2' while another had '-2' inscribed on it. The numbers of balls for each symbol are the relative frequencies with which the  $j$ -class signed errors,  $j = 0, \pm 1, \pm 2$  occur for terceled data (cf §4). To make predictions the stochaster drew a ball at random from the urn. If it had '0' on it, then it was recorded that he made a correct prediction; if it had '+1' or '+2' on it, he committed  $\pm 1$ -class or  $\pm 2$ -class errors, respectively for that draw and it was so noted. In all, for a given season he made 99 independent draws from the urn. At the end of the 99 draws the number and type of signed  $j$ -class errors were totaled. From these, the unsigned errors could be found. For example for season 1, Table 4 shows he had the score  $(u,v,w) = (33, 46, 20)$ , obtained from the signed errors as indicated below the table.

6) The differences in appearances between the scatter diagrams of C and D are readily explained: recall that C had a more open pattern than D, signifying

\* There is no significance to the number of dice used; they simply were available from a popular game of chance.

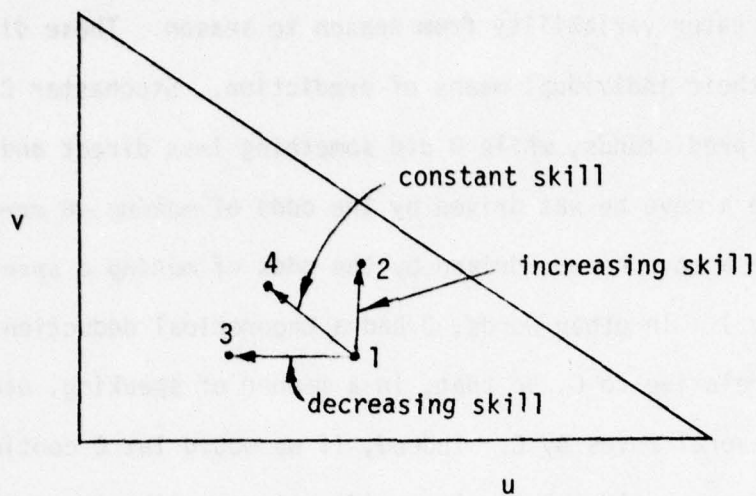


more scatter, greater variability from season to season. These differences are clearly due to their individual means of prediction. Stochaster C worked directly with the actual predictands, while D did something less direct and more abstract: each time D made a move he was driven by the odds of *making an error*; by contrast each time C made a move he was driven by the odds of *making a specific prediction* (A, N, or B, e.g.). In other words, D had a theoretical deduction of a higher order built into him relative to C, so that, in a manner of speaking, each move by D was equivalent to several moves by C. Indeed, if we would let C continue indefinitely, his scatter patterns would relatively rapidly tighten like those of D and in the limit be described by the elliptical contours in the diagrams: 50% of his scores would eventually fall within the 50% contours, 80% within the 80% contours, and so on.

#### E. Ranking performances by moments and $\chi^2$

We may supplement the  $\chi^2$  value of a score in judging skill by the following considerations.

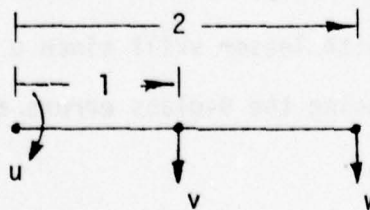
1) In the diagram below, point 1 is given in the uv plane. If on the one hand we rise vertically from 1 so as to leave u fixed, we go to a point 2 which is clearly associated with greater skill since v increases while w decreases; in other words, we are decreasing the 2-class errors and trading them in for 1-class errors, errors which are more palatable to the forecaster. On the other hand, if we move to the left of point 1, horizontally, so as to leave v fixed, we go to a point 3 which is clearly associated with lesser skill since u decreases while w increases; in other words, we are decreasing the 0-class errors and trading them in for 2-class errors.



There must then be an intermediate direction between that of segments 12 and 13, say 14, along which there is no change in the quality of skill. A moment's reflection would show that once we give numerical weights to the importances of the 1- and 2-class errors, this direction of constant skill is fixed. A natural assignment of weights may be made by defining the *moment*  $m$  of a trinomial score. We write

$$'m' \text{ for } 0 \cdot u + 1 \cdot v + 2 \cdot w$$

and call it the *moment of*  $(u, v, w)$  *about*  $u$ . We may envision the  $v$  and  $w$  scores as occurring on a lever



thereby producing a turning moment; the values  $v, w$  act like masses and their distances 1, 2 respectively act like moment arms. The object of a forecaster is to minimize

this moment, to bring it down to 0, ideally. The smaller  $m$  is, the better his performance. Since  $u + v + w = n$ , we can write

$$m = 2n - 2u - v \quad (6.1)$$

where  $n$  is the number of prediction locations, as usual. For a fixed  $n$  and  $m$ , (6.1) defines a straight line in the  $uv$  plane, namely

$$v = -2u + (2n-m) \quad (6.2)$$

along which the moments of the scores are constant, and hence, by agreement, the points  $(u,v)$  have equal quality in the moment sense.

2) As a result of this assignment of a moment to each  $(u,v)$  we can, with the help of the  $\chi^2$  ellipses (introduced in § A) lay down a coordinate net over the trinomial  $uv$  domain. By means of this network, shown, e.g., in Fig 6, we can locate points and assign to them relative ranks of performance. For example, on Figs 6, 6a we have placed the average\* points  $(\hat{u}, \hat{v})$  of the scores given in Tables 1-8. The average temperature scores are given on Fig 6, the average precipitation scores are on Fig 6a. It is seen that our earlier conclusions about the essentially equivalent skills of A and B and their superiority over C and D are graphically borne out using the present coordinate frame. The average points of A and B on Fig 6a lie essentially along the same moment line and on the same  $\chi^2$  curve. Each is clearly superior to C and D. However A and B find themselves between the 50% and 80%  $\chi^2$  ellipses, as may be seen by comparing with Fig 6b, in which the 50% - 99% ellipses are also drawn in for comparison. Thus, *on the average*, the performances of A and B are mediocre. These average points are also drawn in as the circled crosses in Figs 7-14. In the latter set, the standard deviation of each average score is shown by means of a

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\* Thus  $\hat{u}$  is the average of all  $u$ -points and  $\hat{v}$  that of all  $v$ -points.



dashed circle with radius equal to the standard deviation and centered on the mean point. These statistics are summarized below Table 1. Observe that in these average temperature and precipitation tables, while A has a larger average  $\hat{u}$  than B, our agreement to measure performances relative to  $\chi^2$  and  $m$  in Fig 6 shows that their performances are essentially the same. If an edge has to be given to one over the other, for the present accumulation of scores, A may be judged slightly superior, by looking at the  $m$  scores below Table 1 or closely at Fig 6 and seeing that, while A and B lie on the same  $\chi^2$  ellipse, A lies on a slightly lower moment line. At this stage of development of the prediction art, these differences are too small either to comfort or discourage A or B, respectively. Observe in particular that the average  $\hat{u}$  score of A or B by itself places either forecaster quite close to the 95% level (cf Table 9). If, however, we look not only at the number of correct predictions, but also at the number of 1-class errors (and hence implicitly the 2-class errors) a new perspective on their performances is attained: *In general, a good average score should land in a high skill region and with a relatively small standard deviation circle.* Both forecasters therefore should be concerned with increasing their *average*  $\hat{u}$  and  $\hat{v}$  scores; it was these that placed them both in a rather undistinguished area of the skill diagram. Moreover, consistently predicting climate *variations* manifests itself in smaller (tighter) scatter diagrams.

Thus we now have a reasonably objective framework in which to gauge forecasting skill as actual scores begin to accumulate and scatter diagrams begin to fill in.

3) We may summarize the ranking procedure using  $m$  and  $\chi^2$  as follows

$$\begin{aligned}
 (u,v) &= (u',v') \quad \text{if} \quad \left[ \begin{array}{l} \chi^2(u,v) = \chi^2(u',v') \\ m(u,v) = m(u',v') \end{array} \right. \\
 (u,v) &> (u',v') \quad \text{if} \quad \left[ \begin{array}{l} m(u,v) < m(u',v') \\ \text{regardless of } \chi^2 \\ \text{or } m(u,v) = m(u',v') \\ \text{and } \chi^2(u,v) > \chi^2(u',v') \end{array} \right.
 \end{aligned}$$

In other words, two pairs  $(u,v)$ ,  $(u',v')$  are of equal rank if their moments  $m$  and  $\chi^2$  values agree. Observe they need not be coincident to be of equal rank. Points C, D in Fig 6 are essentially equivalent. Also points 1, 2 are of equal rank. If the moments of two points agree, then we use  $\chi^2$  to break the deadlock, the one with the lesser probability of occurrence (higher  $\chi^2$ ) being of higher rank; e.g., point 2 is of greater rank than 3 in Fig 6. Therefore, in ranking points within a given region or set of points we give precedence to the moment of a score. This is clearly a convention (rather than a logical deduction) but one that is based on the intuitive interpretations of the scores  $u,v$  and their probabilities of occurrence. If a reader takes issue with this convention, then this means that he must (i) decide on a new relative weighting of  $v,w$  errors (and come up with an alternative to the moment  $m$ ) and (ii) decide on the relative importance of the new  $m$ , and  $\chi^2$ . It may be that these relative weights and relative importances would vary with location over the  $uv$  plane.

A word of advice can be made here, in conclusion: whatever one convenes as the method of ranking performances, fine differences and subtle nuances in scoring systems will be swept aside and be inessential in the face of truly superior or even just good forecasting. The present method of ranking appears to go far beyond what has already been used. Perhaps then it is time to turn to the really basic problem at hand, the problem of forecasting, to devote more energy to improving *that* art, and perhaps gauging such efforts with the basically adequate ranking scheme we now have at hand.

## 7. Construction of Tables A-E and EXP

The graphical scoring charts we have used in our studies above are based on some simple analytical geometry and on probability calculations. These latter calculations are summarized in Tables A-E and EXP. They represent a fresh look at the  $\chi^2$  quantity by calculating its values and their corresponding exact probabilities

from the trinomial distribution for  $p(u,v,w)$  given in §3. In particular we compared the approximate probabilities of  $\chi^2$  as given by (5.5) with their exact counterparts given by (3.2) and saw that, except for certain noncritical regions in the  $uv$  plane, the classical cumulative probability distribution for  $\chi^2$  was adequate to serve as a base for our probability ellipses in the trinomial skill charts. We now discuss the construction of these tables for the benefit of those who may wish to explore analogous skill chart constructions for values of  $n$  and  $a_0, a_1, a_2$  not specifically covered in this study.

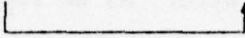
#### A. Table A

One of the motivations of this calculation was simple curiosity: to see what the probability was for each of the 5050 possible triples  $(u,v,w)$  (ranging from  $(0, 0, 99)$  to  $(99, 0, 0)$ ) on the triangular scoring surface depicted in §3. Accordingly a computer was instructed to find  $p(u,v,w)$  via (3.2) to five significant figures for the tercile case:  $a_0=1/3, a_1=4/9, a_2=2/9, n=99$ . It turned out that many of the triples with low  $u$  values ( $\leq 14$ ) and high  $u$  values ( $\geq 54$ ) had probabilities far below  $10^{-5}$ . Removing these from the computed list, we were left with 2644 triples whose probabilities or associated cumulative probabilities were  $10^{-5}$  or greater. The range of these 2644 triples may be seen in graphic form in Fig 25, or directly in Table A, which begins with the triple  $(14,52,33)$  and ends with  $(54,35,10)$ . The triples in Table A are arranged in 'alphabetical' order and may be visualized as progressing through the  $uv$  plane as shown in Fig 25. Along with  $(u,v,w)$  are given their  $\chi^2$  values (in the column marked ' $\chi^2$ '), their probabilities (marked ' $P(A)$ '), and their cumulative probabilities (marked ' $CUM P(A)$ '). In order to understand the connections with later tables, we summarize the present calculations as follows, using the column headings:



TABLE A:

(u,v,w)	$\chi^2$	P(A)	CUM P(A)
(ordered)	(computed)	(computed)	(computed from P(A))


  
yields

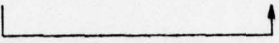
As we progress through Table A, we observe the  $\chi^2$  values dipping in value, reaching a minimum, then rising again, over and over again. This may be explained graphically by looking at Fig 6 and imagining the paths taken through its domain as indicated schematically in Fig 25. As we start with (14,52,33) and move along the trajectory suggested in Fig 25, and at the same time keep an eye on the values of P(A), we see that CUM P(A) builds slowly, being fed invisibly by P(A) until, finally, at triple (23,38,38) the triples have probabilities larger than  $10^{-5}$ , and which go on to swell to a maximum at (23,51,25) and then decrease down to  $10^{-5}$  again at (23,63,13). All of this can be followed in imagination on Fig 25 by visualizing a probability haystack centered on (33,44) in the uv plane. Again and again the ordered triples (u,v,w) in Table A slice through the haystack, taking increasingly meatier chunks of probability as the vertical traverses in Fig 25 get closer to the u=33 slice. As this slice is traversed (see p(15) of Table A) we finally attain the maximum value of p(u,v,w) in the entire table at the average point (33,44,22), namely  $p(33,44,22) = .00880$ . At this point, as the cumulative probability tally shows, we have accumulated half of the total probability mass. After this, the slices cut through the lower slopes of the probability haystack, decreasing steadily in content until eventually, as the traverse of slice u=54 is made, the final readable contributions to the total mass are made.

B. Table B

For this table we ordered the  $\chi^2$  values, encountered in Table A, in increasing order. As these  $\chi^2$  values were ordered we simply carried along the associated triples (u,v,w) and P(A) values. The net result was a shuffled set of triples and probabilities. From the latter, as we went along, we added them up and formed CUM P(B):

TABLE B:

(u,v,w)	$\chi^2$	P(A)	CUM P(B)
(shuffled)	(ordered)	(shuffled)	(computed from shuffled P(A))


  
yields

The net result, CUM P(B), could be visualized as an 'integration' of P(A) using a polar coordinate frame with (33,44,22) as center. As we progressed from smaller to larger  $\chi^2$  values we were sweeping up P(A) values in ever larger (essentially elliptical) regions about (33,44,22), and adding them together. Fig 24 shows the 50% ellipse enclosing about 79 points. These 79 points are represented by the first 79 entries of Table B from (33,44,22) to (31,41,27) at which the total probability mass accumulated was .50206. The  $\chi^2$  'radius' at this point is 1.4621. In this way we were able to associate to each  $\chi^2$  its *exact* associated cumulative probability. This was the primary purpose of Table B. By the time we had moved out to  $\chi^2 = 76.0909$ , we had essentially accumulated all probability mass (to within  $10^{-5}$ ), and could have truncated the table there. The region covered by the associated ellipse may be estimated from Figs 6 and 25. See in particular the points on Fig 25 for  $\chi^2$  near 75, 76.

C. Table C

This table is Table B now with ordered triples for easy look up of CUM P(B)

at each (u,v,w):

TABLE C

(u,v,w) (ordered)	X2  (as in Table A)	P(A)	CUM P(C)  (shuffled CUM P(B))
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D. Table D

To see how well the  $\chi^2$ -ellipses (to be constructed below) embraced the accumulating probability mass as we swept radially outward from the center (average) point (33,44,22), we returned to Table A and arranged P(A) in *decreasing* order. In this way we nibbled outward from the center of the haystack, accumulating probability in a natural way, going along the 'true' contours of the *discrete* haystack:

TABLE D

(u,v,w) (shuffled)	X2 (shuffled)	P(A) (decreasing order)	CUM P(C) (computed from decreasing order of P(A))
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└──────────┐  
yields

To see what we had, we immediately made from this:



E. Table E

TABLE E

(u,v,w)	X <sup>2</sup>	P(A)	CUM P(E)
(ordered)	(as in Table A)		(shuffled CUM P(D))

A spot check was made at several points (u,v,w,) in the uv plane to see how well the cumulative probabilities agreed in Tables C and E. This would give a check on how well the  $\chi^2$  contours could describe the enclosed probability mass. The reader is invited to do the same. To start him off, consider the following selection of points

		CUM P(E)	CUM P(C)
a)	(33, 44, 22)	.00880	.00880
b)	(38, 40, 21)	.44133	.45115
c)	(40, 39, 20)	.65669	.66549
d)	(44, 36, 19)	.92697	.93879
e)	(48, 33, 18)	.99199	.99438

These points are shown on Fig 6 radiating outward from the origin. The agreement in cumulative probabilities is within one or two percent. Other checks along different lines show that we may use the  $\chi^2$  value as a radial index in terms of which, within a few percent, we may characterize the probability mass within the  $\chi^2=\text{constant}$  elliptical contour. *This then supplied the rigorous basis for the nested elliptical contours in the skill score charts of this study.* Any further constructions wishing to use smooth elliptical contours to summarize constant- $\chi^2$  regions of given probability mass must satisfactorily pass this test. Otherwise the exact constant- $\chi^2$  contours, which will likely be somewhat irregular, must be found by detailed plotting.

F. Table EXP

As a matter of simple curiosity we wanted to see how closely the  $\chi^2$  distribution (5.5) approximated the exact trinomial probabilities yielded by (3.2). The form of (5.5) for the terceled trinomial case is obtained by setting  $r=3$ , resulting in

$$T_2(\chi^2)d(\chi^2) = \frac{1}{2} e^{-\frac{1}{2}\chi^2} d(\chi^2) , \quad (7.1)$$

a simple exponential in the variable  $\chi^2$ . How well does (7.1) describe the present state of affairs? In Fig 23 we show a plot of the exact values of  $p(u,v,w)$  for various  $\chi^2$  values. For example, for  $\chi^2=0$  we have from Table B the probability of  $P(33,33,22)$  as .00880, and is shown on Fig 23. For  $\chi^2 \approx 1-13$ , there are several triples associated with each value (cf. e.g.,  $\chi^2 = 1.0227$ ). The range of probabilities associated with each  $\chi^2$  is indicated by the vertical bar on Fig 23. This points up the important theoretical fact that  $T_2(\chi^2)$  does not account for the multiple-valuedness of the exact  $\chi^2$  relation defined by Table B. Moreover, a plot of the exponential in (7.1) in Fig 23 does not coincide with the visually-fit exponential going through the mass of points from Table B.

To see how well the *cumulative* probabilities were given by (7.1), the computer was instructed to find

$$(\text{CUM EXP})_n \equiv \frac{1}{2} \sum_{i=1}^n \exp \left[ \frac{-A_i}{2} \right] \Delta A_i, \quad n \geq 1 \quad (7.2)$$

$$A_i = \chi_i^2 = (X2)_i$$

where  $n$  denotes the row of Table B. Here  $\chi_i^2$  is the ordered  $\chi^2$  entry in row  $i$ , and  $\Delta A_i = A_i - A_{i-1}$ , with  $A_0=0$ . The listing below compares CUM  $P(B)$  with (CUM EXP) as found in (7.2), which simulates the discrete indefinite integral of (7.1).

$\chi^2$	CUM P(B)	CUM EXP
0	.00880	.00000
.0530	.02593	.02582
.1667	.06787-.07610	.07861
.2121	.09999-.10797	.09917
.3030	.14672-.15419	.13882
.5303	.23229-.23892	.22986
1.0227	.38958-.40544	.39524
1.5000	.51474-.52730	.52025
2.0076	.62822-.63176	.62341
3.0303	.78191-.78374	.76761
4.0530	.86759-.86883	.85401
5.0303	.92268-.92333	.90402
6.0000	.95200-.95343	.93455
7.0227	.96993-.97076	.95408
8.0076	.98150-.98167	.96551
9.0000	.98916-.98944	.97250
10.0076	.99351-.99360	.97682

This shows that the cumulative probabilities of  $\chi^2$  in the third column, as given by (7.1)-(7.2) are reasonably good approximations to the exact values. Strictly speaking, as we saw in Fig 23, there is no one triple associated with a  $\chi^2$  value, but actually several. Hence the exact displayed range of values of CUM P(B) for each  $\chi^2$ . A similar comparison with CUM P(E) is possible, and shows the same degree of close agreement with CUM EXP. This indicates that for rough practical purposes we can use tables B, C, E, EXP interchangeably when assigning probabilities to  $\chi^2$ . However, the exact table for this purpose is B or C. Table A is our basic table from which our numerical knowledge of  $p(u,v,w)$  springs.



### 8. Construction of the Skill Charts

The elliptical contours in the various figures in this study (as justified by the above results on Table C and Table E) may be found analytically as follows. Imagine the set of all points  $(u,v,w)$  in the scoring plane (cf diag. in §3) with a given fixed  $\chi^2$  value. Thus we imagine all  $(u,v,w)$  in the plane such that

$$\frac{(u-\bar{u})^2}{\bar{u}} + \frac{(v-\bar{v})^2}{\bar{v}} + \frac{(w-\bar{w})^2}{\bar{w}} = \chi^2 \quad (8.1)$$

where

$$\bar{u} = na_0, \bar{v} = na_1, \bar{w} = na_2$$

and  $a_0, a_1, a_2$  are defined in §3. Since

$$u + v + w = n \quad (8.2)$$

there is a corresponding set of points  $(u,v)$  in the  $uv$  plane having the same constant  $\chi^2$  value. Using (8.2) in (8.1) and solving for  $v$  as a function of  $u$ , we find

$$v = \frac{-\bar{v}}{\bar{v}+\bar{w}} \cdot (u-\bar{u}) + \bar{v} \pm b^{-1} \left\{ (1-ab)(u-\bar{u})^2 + \bar{w}b\chi^2 \right\}^{1/2} \quad (8.3)$$

where

$$a = 1+(\bar{w}/\bar{u}), b = 1+(\bar{w}/\bar{v})$$

The plus sign describes the upper half, the minus sign the lower half of an ellipse centered on the straight line defined by

$$v = \frac{-\bar{v}}{\bar{v}+\bar{w}} \cdot (u-\bar{u}) + \bar{v} \quad (8.4)$$

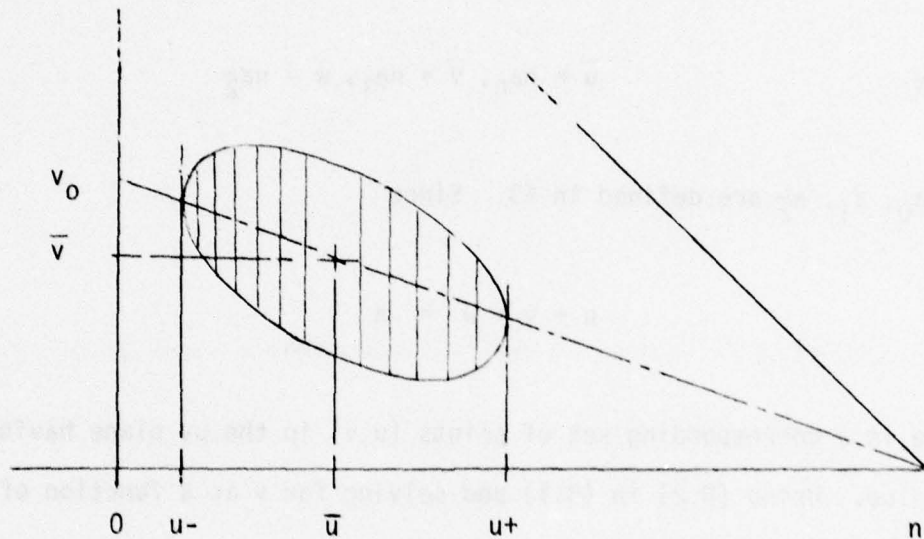
This is the straight line through the average point  $(\bar{u}, \bar{v})$  and the point  $(n, 0)$ , the

point of maximum skill in a trinomial diagram. The  $v$  intercept  $v_0$  occurs where  $u=0$ .

In the case of  $n=99$ ,  $a_0=1/3$ ,  $a_1=4/9$ ,  $a_2=2/9$ ,  $v_0$  is given by:

$$v_0 = \bar{v} + \left( \frac{a_0 a_1}{1-a_0} \right) n = 44 + 22 = 66 .$$

A general sketch of the ellipses in the trinomial setting is given below. It is seen that the ellipses are vertically sheared about the line given by (8.4).



The horizontal limits  $u_{\pm}$  of the ellipses in these diagrams are obtained by setting the term in curly brackets in (8.3) to zero and solving the resultant quadratic for  $u$ :

$$u_{\pm} = \bar{u} \pm \left\{ \frac{\bar{w} b x^2}{ab-1} \right\}^{1/2} \quad (8.5)$$

By construction, each vertical line ( $u=u_{\pm}$ ) is tangent to its ellipse where the line (8.4) pierces the ellipse. A study of Table A shows that the line (8.4) is the locus of maximum probabilities observed by making vertical (const  $u$ ) slices through the probability haystack based on the  $uv$  plane.

The formulations above serve also to define the ellipses in the signed error diagrams, such as in Fig 4. We simply make the following assignments in (8.1) and related equations and carry out the resultant forms of the calculations:

<u>Unsigned errors</u>		<u>Signed errors</u>
$u, \bar{u}$	pairs with	$v(-), \bar{v}(-)$
$v, \bar{v}$		$v(+), \bar{v}(+)$
$w, \bar{w}$		$u(0), \bar{u}(0)$
$a_0$		$a(-)$
$a_1$		$a(+)$
$a_2$		$a(0)$

Finally, to assign a probability to  $\chi^2$  values for the purpose of labeling the ellipses with confidence level values, we used Table B as follows: we ran down the table until we encountered cumulative probabilities .50, .80, .90, .95, .98, and .99, and then simply picked off the corresponding  $\chi^2$  values, which are summarized below.

Cum prob.	Assoc. $\chi^2$	From std. $\chi^2$ tables (2d. f.)
50%	1.4621	1.386
80	3.2121	3.219
90	4.6667	4.605
95	5.9394	5.991
98	7.8030	7.824
99	9.1667	9.210

It can be seen that our exact  $\chi^2$  values agree closely with those obtained from standard



(but approximate)  $\chi^2$  tables for two degrees of freedom. But this agreement is not generally known *a priori* for a given  $n$  and  $a_0, a_1, a_2$ . For this reason, the cautious chart designer would go through essentially the procedures described in §7, to find not only his own particular  $\chi^2$  values for (say) the above probabilities but also to see if the ellipses themselves are adequate to describe the regions in the  $uv$  plane with constant  $\chi^2$  (recall the concluding remarks of §7E).

Final checks on the accuracy of our computer graphics are made in Figs 24, 25. In particular, note how closely the analytically defined ellipses follow the discretely determined points with constant  $\chi^2$ .

#### 9. Acknowledgments

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The computations of Tables A-E and EXP were done by Anthony Tubbs, as also were preliminary computer graphic versions of the skill diagrams. Ron Moe completed the computer graphic versions. The author programmed Tables 10-15. Karen Douglas programmed the Figures 6, 6a, 6b. Madge Sullivan compiled the original meteorologic data from which Tables 1, 2, 5, 6 were made. Eleanor Preisendorfer aided in operating the stochasters C and D leading to Tables 3, 4, 7, 8. Grace Johnston typed the report. Finally, I am grateful to Tim Barnett for helpful discussions during the course of research, and Jerry Namias for supplying the initial inspiration and continued encouragement for the study.

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TABLE 1  
TERCEILED TEMPERATURE  
FORECASTER A

	SEASON	$u(0)$ $= u$	$v_1(+)$	$v_2(+)$	$v(+)$	$v_1(-)$	$v_2(-)$	$v(-)$	$v$	$w$
1	Wnt 74	42	13	0	13	24	20	44	37	20
2	Spr 74	27	19	5	24	28	20	48	47	25
3	Sum 74	30	30	11	41	21	7	28	51	18
4	Fal 74	44	15	5	20	28	7	35	43	12
5	Wnt 75	46	29	3	32	19	2	21	48	5
6	Spr 75	70	23	0	23	6	0	6	29	0
7	Sum 75	45	19	15	34	18	3	21	37	18
8	Fal 75	45	20	0	20	30	4	34	50	4
9	Wnt 76	23	8	1	9	40	27	67	48	28
10	Spr 76	30	30	5	35	23	11	34	53	16
11	Sum 76	43	41	6	47	8	1	9	49	7
12	Wnt 77	59	16	2	18	20	2	22	36	4
13	Spr 77	37	1	0	1	36	25	61	37	25
14	Sum 77	27	15	8	23	26	23	49	41	31

$$v(+) = v_1(+) + v_2(+)$$

$$v = v_1(+) + v_1(-)$$

$$v(-) = v_1(-) + v_2(-)$$

$$w = v_2(+) + v_2(-)$$

Forecaster's TEMPERATURE Average Scores

	$\hat{u}$	$\hat{v}$	$s$	$m$
A	40.5	43.3	14.9	73.7
B	36.1	48.4	16.4	77.4
C	31.3	46.7	8.4	88.7
D	33.6	42.1	6.0	88.7

Forecaster's PRECIPITATION Average Scores

	$\hat{u}$	$\hat{v}$	$s$	$m$
A	39.3	44.0	11.2	75.4
B	37.3	47.3	7.9	76.1
C	31.3	46.8	6.7	88.1
D	35.9	44.2	5.9	82.0



TABLE 2  
TERCEILED TEMPERATURE  
FORECASTER B

	SEASON	$u(0)$ $= u$	$v_1(+)$	$v_2(+)$	$v(+)$	$v_1(-)$	$v_2(-)$	$v(-)$	$v$	$w$
1	Wnt 74	29	31	1	32	23	15	38	54	16
2	Spr 74	38	9	0	9	31	21	52	40	21
3	Sum 74	62	20	0	20	16	1	17	36	1
4	Fal 74	19	26	22	48	21	11	32	47	33
5	Wnt 75	43	6	2	8	35	13	48	41	15
6	Spr 75	11	64	24	88	0	0	0	64	24
7	Sum 75	45	25	3	28	23	3	26	48	6
8	Fal 75	43	26	5	31	24	1	25	50	6
9	Wnt 76	33	14	1	15	44	7	51	58	8
10	Spr 76	45	26	3	29	24	1	25	50	4
11	Sum 76	47	25	13	38	13	1	14	38	14
12	Wnt 77	44	42	1	43	9	3	12	51	4
13	Spr 77	32	4	0	4	54	9	63	58	9
14	Sum 77	14	14	8	22	28	35	63	42	43

$$v(+) = v_1(+) + v_2(+)$$

$$v(-) = v_1(-) + v_2(-)$$

$$v = v_1(+) + v_1(-)$$

$$w = v_2(+) + v_2(-)$$

TABLE 3  
TERCELED TEMPERATURE  
FORECASTER C (target: actual predictand)

	SEASON	$u(0)$ = $u$	$v_1(+)$	$v_2(+)$	$v(+)$	$v_1(-)$	$v_2(-)$	$v(-)$	$v$	$w$
1	Wnt 74	29	31	2	33	23	14	37	54	16
2	Spr 74	35	13	3	16	30	18	48	43	21
3	Sum 74	31	17	15	32	24	12	36	41	27
4	Fal 74	26	29	18	47	16	10	26	45	28
5	Wnt 75	31	23	4	27	32	9	41	55	13
6	Spr 75	34	31	21	52	13	0	13	44	21
7	Sum 75	30	25	15	40	20	9	29	45	24
8	Fal 75	41	16	11	27	26	5	31	42	16
9	Wnt 76	27	12	0	12	40	20	60	52	20
10	Spr 76	24	32	2	34	29	12	41	61	14
11	Sum 76	38	29	12	41	17	3	20	46	15
12	Wnt 77	38	31	15	46	13	2	15	44	17
13	Spr 77	29	10	4	14	26	30	56	36	34
14	Sum 77	25	15	8	23	31	20	51	46	28

$$v(+) = v_1(+) + v_2(+)$$

$$v(-) = v_1(-) + v_2(-)$$

$$v = v_1(+) + v_1(-)$$

$$w = v_2(+) + v_2(-)$$

TABLE 4  
TERCELED TEMPERATURE

FORECASTER D (target: idealized predictand)

	SEASON	$u(0)$ $= u$	$v_1(+)$	$v_2(+)$	$v(+)$	$v_1(-)$	$v_2(-)$	$v(-)$	$v$	$w$
1	Wnt 74	33	26	12	38	20	8	28	46	20
2	Spr 74	31	28	13	41	21	6	27	49	19
3	Sum 74	35	22	13	35	18	11	29	40	24
4	Fal 74	38	18	15	33	15	13	28	33	28
5	Wnt 75	35	24	11	35	20	9	29	44	20
6	Spr 75	33	24	15	39	21	6	27	45	21
7	Sum 75	33	19	9	28	25	13	38	44	22
8	Fal 75	36	26	11	37	18	8	26	44	19
9	Wnt 76	30	21	13	34	27	8	35	48	21
10	Spr 76	38	14	12	26	17	18	35	31	30
11	Sum 76	34	21	12	33	22	10	32	43	22
12	Wnt 77	34	24	16	40	13	12	25	37	28
13	Spr 77	32	20	14	34	21	12	33	41	26
14	Sum 77	28	22	8	30	22	19	41	44	27

$$v(+) = v_1(+) + v_2(+)$$

$$v(-) = v_1(-) + v_2(-)$$

$$v = v_1(+) + v_1(-)$$

$$w = v_2(+) + v_2(-)$$



TABLE 5  
TERCELED PRECIPITATION  
FORECASTER A

	SEASON	$u(0)$ $= u$	$v_1(+)$	$v_2(+)$	$v(+)$	$v_1(-)$	$v_2(-)$	$v(-)$	$v$	$w$
1	Sum 74	38	23	11	34	20	7	27	43	18
2	Fal 74	49	15	7	22	24	4	28	39	11
3	Wnt 75	46	11	2	13	25	15	40	36	17
4	Spr 75	40	24	11	35	23	1	24	47	12
5	Sum 75	38	24	8	32	25	4	29	49	12
6	Fal 75	21	33	17	50	17	11	28	50	28
7	Wnt 76	37	33	15	48	9	5	14	42	20
8	Spr 76	43	22	9	31	20	5	25	42	14
9	Sum 76	52	16	5	21	25	1	26	41	6
10	Wnt 77	45	27	16	43	10	1	11	37	17
11	Spr 77	25	36	12	48	24	2	26	60	14
12	Sum 77	37	22	10	32	20	10	30	42	20

$$v(+) = v_1(+) + v_2(+)$$

$$v(-) = v_1(-) + v_2(-)$$

$$v = v_1(+) + v_1(-)$$

$$w = v_2(+) + v_2(-)$$

TABLE 6  
TERCEILED PRECIPITATION  
FORECASTER B

	SEASON	$u(0)$ = u	$v_1(+)$	$v_2(+)$	$v(+)$	$v_1(-)$	$v_2(-)$	$v(-)$	v	w
1	Sum 74	40	32	10	42	15	2	17	47	12
2	Fal 74	34	31	18	49	15	1	16	46	19
3	Wnt 75	46	26	6	32	17	4	21	43	10
4	Spr 75	43	18	3	21	33	2	35	51	5
5	Sum 75	37	24	4	28	29	5	34	53	9
6	Fal 75	32	30	18	48	14	5	19	44	23
7	Wnt 76	35	35	17	52	11	1	12	46	18
8	Spr 76	31	19	27	46	18	4	22	37	31
9	Sum 76	32	30	10	40	23	4	27	53	14
10	Wnt 77	46	29	11	40	10	3	13	39	14
11	Spr 77	37	44	6	50	9	3	12	53	9
12	Sum 77	35	26	2	28	29	7	36	55	9

$$v(+) = v_1(+) + v_2(+)$$

$$v(-) = v_1(-) + v_2(-)$$

$$v = v_1(+) + v_1(-)$$

$$w = w_2(+) + v_2(-)$$

TABLE 7  
TERCEILED PRECIPITATION  
FORECASTER C (target: actual predictand)

	SEASON	$u(0)$ = $u$	$v_1(+)$	$v_2(+)$	$v(+)$	$v_1(-)$	$v_2(-)$	$v(-)$	$v$	$w$
1	Sum 74	28	33	13	46	19	6	25	52	19
2	Fal 74	33	19	15	35	19	13	32	38	28
3	Wnt 75	29	18	7	25	28	17	45	46	24
4	Spr 75	35	18	7	25	26	13	39	44	20
5	Sum 75	31	26	8	34	27	7	34	53	15
6	Fal 75	34	23	9	32	24	9	33	47	18
7	Wnt 76	27	19	20	39	24	9	33	43	29
8	Spr 76	27	25	21	46	21	5	26	46	26
9	Sum 76	36	29	11	40	16	7	23	45	18
10	Wnt 77	34	27	20	47	13	5	18	40	25
11	Spr 77	35	31	5	36	20	8	28	51	13
12	Sum 77	26	20	8	28	37	8	35	57	16

$$v(+) = v_1(+) + v_2(+)$$

$$v(-) = v_1(-) + v_2(-)$$

$$v = v_1(+) + v_1(-)$$

$$w = v_2(+) + v_2(-)$$



TABLE 8  
TERCILED PRECIPITATION

FORECASTER D (target: idealized predictand)

	SEASON	$u(0)$ $= u$	$v_1(+)$	$v_2(+)$	$v(+)$	$v_1(-)$	$v_2(-)$	$v(-)$	$v$	$w$
1	Sum 74	34	23	7	30	22	13	35	45	20
2	Fal 74	39	15	13	28	17	15	32	32	28
3	Wnt 75	41	26	3	29	20	9	29	46	12
4	Spr 75	34	25	7	32	24	9	33	49	16
5	Sum 75	35	20	10	30	23	11	34	43	21
6	Fal 75	34	25	15	40	20	5	25	45	20
7	Wnt 76	39	27	11	38	16	6	22	43	17
8	Spr 76	38	20	6	26	26	9	35	46	15
9	Sum 76	30	27	10	37	25	7	32	52	17
10	Wnt 77	38	20	14	34	21	6	27	41	20
11	Spr 77	33	18	11	29	23	14	37	41	25
12	Sum 77	36	23	10	33	24	6	30	47	16

$$v(+) = v_1(+) + v_2(+)$$

$$v(-) = v_1(-) + v_2(-)$$

$$v = v_1(+) + v_1(-)$$

$$w = v_2(+) + v_2(-)$$

TABLE 9  
SKILL SCORES S  
AND CRITICAL RATIOS C vs u  
CASE OF  $n=99$ ,  $p=1/3$ ,  $\bar{u}=33$ ,  $\sigma=4.69$

u = No. Correct Predictions (0-class errors)	Skill Score $S_{99} = (u - \bar{u})(n - \bar{u})^{-1}$	Critical Ratio $C_{99} = (u - \bar{u})\sigma^{-1}$
15	-.273	
16	-.258	
17	-.242	
18	-.227	
19	-.212	
20	-.197	
21	-.182	
22	-.167	-2.34
		(1%)
23	-.152	-2.13
24	-.136	-1.92
25	-.121	-1.70
		(5%)
26	-.106	-1.49
27	-.091	-1.28
28	-.076	-1.07
29	-.061	-.853
30	-.045	-.640
31	-.030	-.426
32	-.015	-.213
		(50%)
33	.000	.000
34	+.015	+.213
35	+.030	+.426
36	+.045	+.640
37	+.061	+.853
38	+.076	+1.07
39	+.091	+1.28
40	+.106	+1.49
		(95%)
41	+.121	+1.70
42	+.136	+1.92
43	+.152	+2.13
		(99%)
44	+.167	+2.34
45	+.182	
46	+.197	
47	+.212	
48	+.227	
49	+.242	
50	+.258	
51	+.273	

# Preface to Tables 10-15

These tables are included for the reader's convenience. In particular, 'K' can stand for u, v, or w, as the case may be, when specialized to the notation of this study. Thus, we have, for terciled data:

In Table 10	K corresponds to u, CUM P(K) to $Q_{99}(u)$ .	$P_{99}(K)$ to $p_{99}(u)$ , $0.3333333333 = 1/3$
In Table 11	K corresponds to v, CUM P(K) to $Q_{99}(v)$ ,	$P(K)$ to $p_{99}(v)$ , $.0.4444444444 = 4/9$
In Table 12	K corresponds to w, CUM P(K) to $Q_{99}(w)$ ,	$P(K)$ to $p_{99}(w)$ $0.2222222222 = 2/9$

Similarly, Tables 13, 14, 15 are for quintiled data, with K corresponding respectively to u, v, w, and

$$0.2000000000 = 1/5$$

$$0.3800000000 = 8/25$$

$$0.4800000000 = 12/25$$

Such tables are readily made up for other values of P and N.



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TABLE 10

BINOMIAL PROBABILITIES

$$P(K) = \frac{N!}{K!(N-K)!} [P^K] [(1-P)^{(N-K)}]$$

N= 99  
P= 0.3333333333

K	P(K)	CUM P(K)	1-CUM P(K)
14	0.00001	0.00001	0.99999
15	0.00002	0.00003	0.99997
16	0.00006	0.00010	0.99990
17	0.00016	0.00025	0.99975
18	0.00035	0.00061	0.99939
19	0.00075	0.00136	0.99864
20	0.00151	0.00287	0.99713
21	0.00284	0.00571	0.99429
22	0.00503	0.01074	0.98926
23	0.00842	0.01916	0.98084
24	0.01333	0.03249	0.96751
25	0.02000	0.05249	0.94751
26	0.02846	0.08095	0.91905
27	0.03848	0.11943	0.88057
28	0.04947	0.16890	0.83110
29	0.06056	0.22945	0.77055
30	0.07065	0.30010	0.69990
31	0.07862	0.37872	0.62128
32	0.08354	0.46226	0.53774
33	0.08480	0.54707	0.45293
34	0.08231	0.62938	0.37062
35	0.07643	0.70581	0.29419
36	0.06794	0.77375	0.22625
37	0.05784	0.83159	0.16841
38	0.04719	0.87877	0.12123
39	0.03690	0.91567	0.08433
40	0.02768	0.94335	0.05665
41	0.01991	0.96326	0.03674
42	0.01375	0.97701	0.02299
43	0.00911	0.98612	0.01388
44	0.00580	0.99192	0.00808
45	0.00354	0.99547	0.00453
46	0.00208	0.99755	0.00245
47	0.00117	0.99872	0.00128
48	0.00064	0.99936	0.00064
49	0.00033	0.99969	0.00031
50	0.00017	0.99985	0.00015
51	0.00008	0.99993	0.00007
52	0.00004	0.99997	0.00003
53	0.00002	0.99999	0.00002
54	0.00001	0.99999	0.00001

TABLE 11

BINOMIAL PROBABILITIES

$$P(K) = \frac{N!}{K!(N-K)!} [P^K] [(1-P)^{N-K}]$$

N= 99  
P= 0.4444444444

K	P(K)	CUM P(K)	1-CUM P(K)
23	0.00001	0.00001	0.99999
24	0.00002	0.00002	0.99998
25	0.00004	0.00006	0.99994
26	0.00008	0.00014	0.99986
27	0.00018	0.00032	0.99968
28	0.00037	0.00069	0.99931
29	0.00073	0.00142	0.99858
30	0.00136	0.00278	0.99722
31	0.00242	0.00521	0.99479
32	0.00412	0.00933	0.99067
33	0.00669	0.01602	0.98398
34	0.01039	0.02641	0.97359
35	0.01544	0.04184	0.95816
36	0.02195	0.06379	0.93621
37	0.02990	0.09370	0.90630
38	0.03903	0.13273	0.86727
39	0.04824	0.18157	0.81843
40	0.05861	0.24018	0.75982
41	0.06747	0.30765	0.69235
42	0.07454	0.38219	0.61781
43	0.07905	0.46123	0.53877
44	0.08048	0.54172	0.45828
45	0.07869	0.62041	0.37959
46	0.07390	0.69432	0.30568
47	0.06667	0.76099	0.23901
48	0.05778	0.81877	0.18123
49	0.04811	0.86688	0.13312
50	0.03849	0.90537	0.09463
51	0.02958	0.93496	0.06504
52	0.02185	0.95680	0.04320
53	0.01550	0.97230	0.02770
54	0.01056	0.98286	0.01714
55	0.00691	0.98978	0.01022
56	0.00435	0.99412	0.00588
57	0.00262	0.99674	0.00326
58	0.00152	0.99826	0.00174
59	0.00084	0.99911	0.00089
60	0.00045	0.99956	0.00044
61	0.00023	0.99979	0.00021
62	0.00011	0.99990	0.00010
63	0.00005	0.99996	0.00004
64	0.00002	0.99998	0.00002
65	0.00001	0.99999	0.00001

TABLE 12

BINOMIAL PROBABILITIES

$$P(K) = [N! / K! (N-K)!] [P^K] [(1-P)^{N-K}]$$

N= 99  
P= 0.2222222222

K	P(K)	CUM P(K)	1-CUM P(K)
6	0.00001	0.00001	0.99999
7	0.00004	0.00005	0.99995
8	0.00012	0.00016	0.99984
9	0.00034	0.00051	0.99949
10	0.00088	0.00139	0.99861
11	0.00204	0.00344	0.99656
12	0.00428	0.00772	0.99228
13	0.00819	0.01591	0.98409
14	0.01437	0.03028	0.96972
15	0.02327	0.05355	0.94645
16	0.03491	0.08846	0.91154
17	0.04869	0.13715	0.86285
18	0.06338	0.20052	0.79948
19	0.07719	0.27772	0.72228
20	0.08822	0.36594	0.63406
21	0.09482	0.46076	0.53924
22	0.09606	0.55682	0.44318
23	0.09188	0.64870	0.35130
24	0.08313	0.73183	0.26817
25	0.07125	0.80308	0.19692
26	0.05794	0.86102	0.13898
27	0.04476	0.90578	0.09422
28	0.03288	0.93867	0.06133
29	0.02300	0.96167	0.03833
30	0.01534	0.97700	0.02300
31	0.00975	0.98676	0.01324
32	0.00592	0.99268	0.00732
33	0.00343	0.99611	0.00389
34	0.00190	0.99802	0.00198
35	0.00101	0.99903	0.00097
36	0.00051	0.99954	0.00046
37	0.00025	0.99979	0.00021
38	0.00012	0.99991	0.00009
39	0.00005	0.99996	0.00004
40	0.00002	0.99998	0.00002
41	0.00001	0.99999	0.00001



TABLE 13

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## BINOMIAL PROBABILITIES

$$P(K) = \frac{N!}{K!(N-K)!} [P^K] [(1-P)^{(N-K)}]$$

N= 99

P= 0.2000000000

K	P(K)	CUM P(K)	1-CUM P(K)
5	0.00002	0.00002	0.99998
6	0.00007	0.00009	0.99991
7	0.00023	0.00032	0.99968
8	0.00067	0.00098	0.99902
9	0.00168	0.00267	0.99733
10	0.00378	0.00645	0.99355
11	0.00765	0.01410	0.98590
12	0.01403	0.02813	0.97187
13	0.02347	0.05160	0.94840
14	0.03605	0.08765	0.91235
15	0.05107	0.13871	0.86129
16	0.06702	0.20574	0.79426
17	0.08181	0.28755	0.71245
18	0.09317	0.38072	0.61928
19	0.09930	0.48002	0.51998
20	0.09930	0.57932	0.42068
21	0.09339	0.67271	0.32729
22	0.08278	0.75548	0.24452
23	0.06928	0.82476	0.17524
24	0.05485	0.87961	0.12039
25	0.04114	0.92075	0.07925
26	0.02927	0.95002	0.04998
27	0.01978	0.96980	0.03020
28	0.01272	0.98252	0.01748
29	0.00778	0.99030	0.00970
30	0.00454	0.99484	0.00516
31	0.00253	0.99737	0.00263
32	0.00134	0.99871	0.00129
33	0.00068	0.99939	0.00061
34	0.00033	0.99973	0.00027
35	0.00015	0.99988	0.00012
36	0.00007	0.99995	0.00005
37	0.00003	0.99998	0.00002
38	0.00001	0.99999	0.00001

BINOMIAL PROBABILITIES

$$P(K) = \frac{N!}{K!(N-K)!} [P^K] [(1-P)^{(N-K)}]$$

N= 99  
P= 0.3200000000

K	P(K)	CUM P(K)	1-CUM P(K)
13	0.00001	0.00001	0.99999
14	0.00003	0.00004	0.99996
15	0.00007	0.00010	0.99990
16	0.00017	0.00028	0.99972
17	0.00039	0.00067	0.99933
18	0.00084	0.00151	0.99849
19	0.00169	0.00321	0.99679
20	0.00319	0.00639	0.99361
21	0.00564	0.01204	0.98796
22	0.00941	0.02145	0.97855
23	0.01483	0.03628	0.96372
24	0.02210	0.05839	0.94161
25	0.03120	0.08959	0.91041
26	0.04179	0.13139	0.86861
27	0.05318	0.18456	0.81544
28	0.06435	0.24891	0.75109
29	0.07414	0.32305	0.67695
30	0.08140	0.40445	0.59555
31	0.08527	0.48972	0.51028
32	0.08527	0.57498	0.42502
33	0.08147	0.65645	0.34355
34	0.07442	0.73087	0.26913
35	0.06504	0.79591	0.20409
36	0.05441	0.85032	0.14968
37	0.04360	0.89392	0.10608
38	0.03348	0.92740	0.07260
39	0.02464	0.95203	0.04797
40	0.01739	0.96943	0.03057
41	0.01178	0.98120	0.01880
42	0.00765	0.98886	0.01114
43	0.00477	0.99363	0.00637
44	0.00286	0.99649	0.00351
45	0.00164	0.99814	0.00186
46	0.00091	0.99905	0.00095
47	0.00048	0.99953	0.00047
48	0.00025	0.99977	0.00023
49	0.00012	0.99990	0.00010
50	0.00006	0.99995	0.00005
51	0.00003	0.99998	0.00002
52	0.00001	0.99999	0.00001

TABLE 15

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## BINOMIAL PROBABILITIES

$$P(K) = (N!/K!(N-K)!)[P**K][(1-P)**(N-K)]$$

N= 99  
P= 0.4800000000

K	P(K)	CUM P(K)	1-CUM P(K)
27	0.00001	0.00001	0.99999
28	0.00003	0.00004	0.99996
29	0.00007	0.00011	0.99989
30	0.00014	0.00025	0.99975
31	0.00029	0.00054	0.99946
32	0.00058	0.00112	0.99888
33	0.00108	0.00220	0.99780
34	0.00193	0.00413	0.99587
35	0.00331	0.00744	0.99256
36	0.00543	0.01287	0.98713
37	0.00854	0.02142	0.97858
38	0.01286	0.03428	0.96572
39	0.01857	0.05285	0.94715
40	0.02571	0.07856	0.92144
41	0.03416	0.11272	0.88728
42	0.04354	0.15626	0.84374
43	0.05328	0.20954	0.79046
44	0.06259	0.27213	0.72787
45	0.07062	0.34275	0.65725
46	0.07652	0.41927	0.58073
47	0.07965	0.49893	0.50107
48	0.07965	0.57858	0.42142
49	0.07653	0.65510	0.34490
50	0.07064	0.72574	0.27426
51	0.06265	0.78839	0.21161
52	0.05338	0.84177	0.15823
53	0.04370	0.88547	0.11453
54	0.03436	0.91983	0.08017
55	0.02595	0.94578	0.05422
56	0.01882	0.96460	0.03540
57	0.01311	0.97771	0.02229
58	0.00876	0.98647	0.01353
59	0.00562	0.99209	0.00791
60	0.00346	0.99555	0.00445
61	0.00204	0.99759	0.00241
62	0.00115	0.99874	0.00126
63	0.00063	0.99937	0.00063
64	0.00033	0.99969	0.00031
65	0.00016	0.99986	0.00014
66	0.00008	0.99993	0.00007
67	0.00003	0.99997	0.00003
68	0.00002	0.99998	0.00002
69	0.00001	0.99999	0.00001



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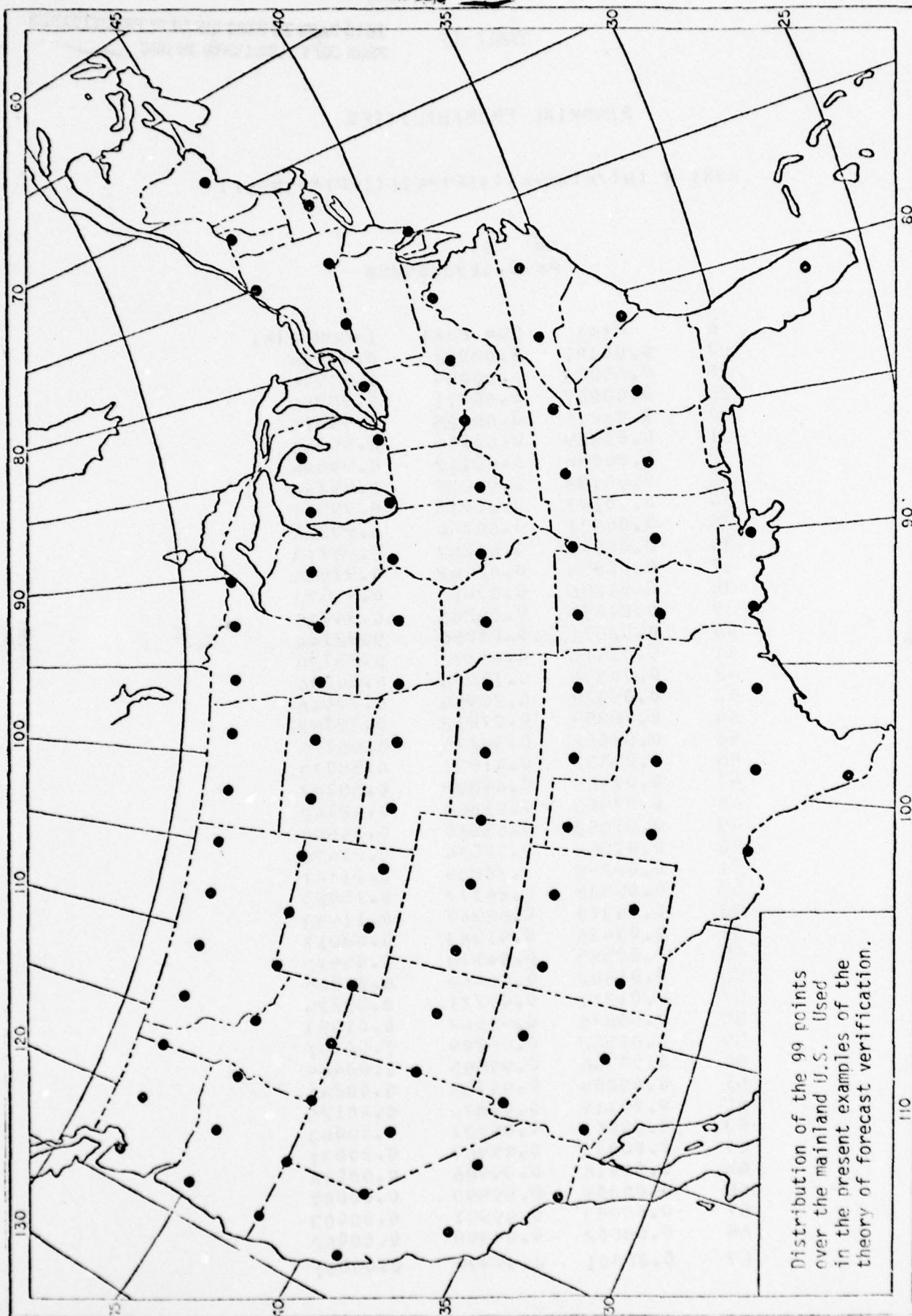


Figure 1

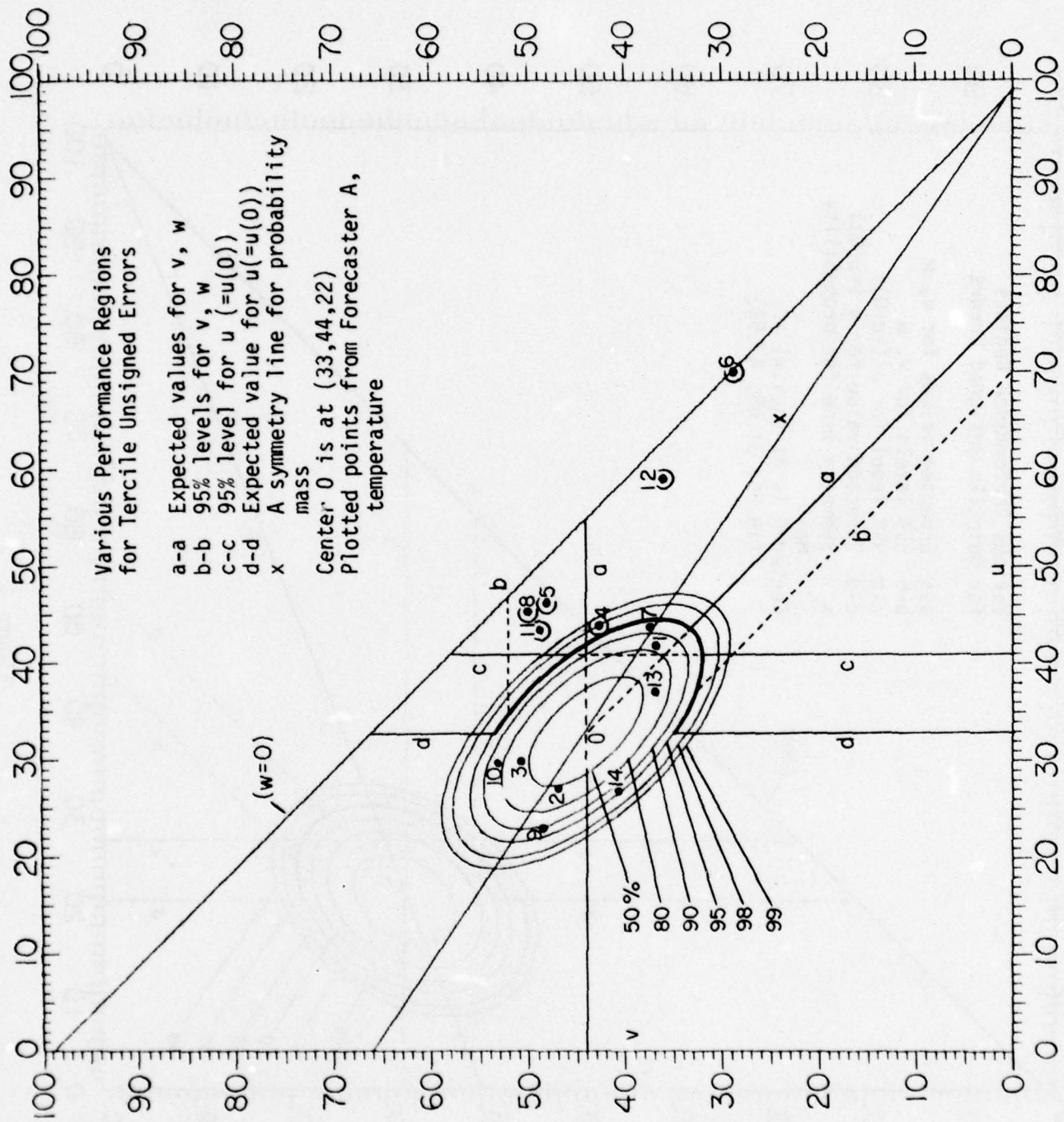


Figure 2

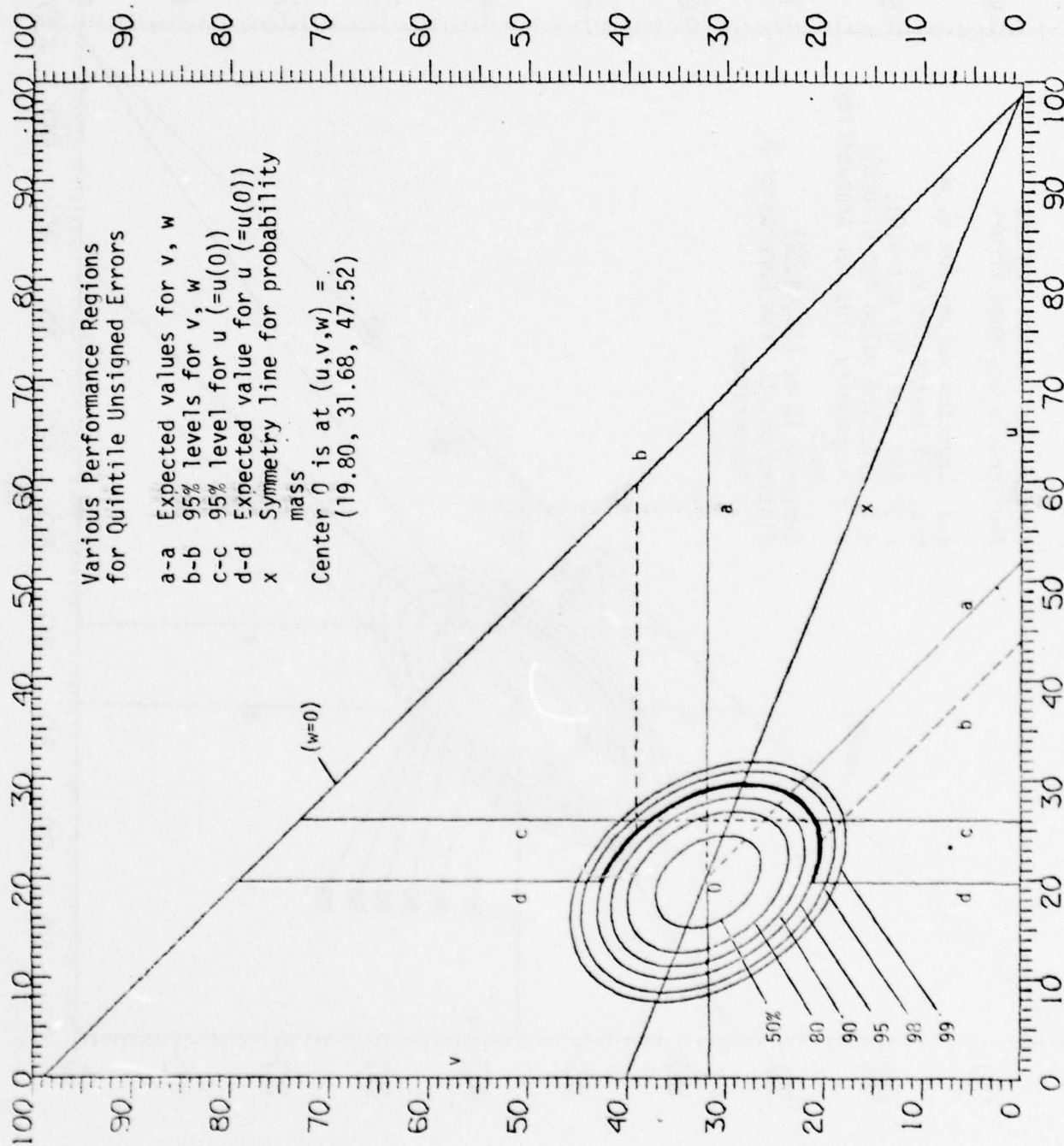


Figure 3



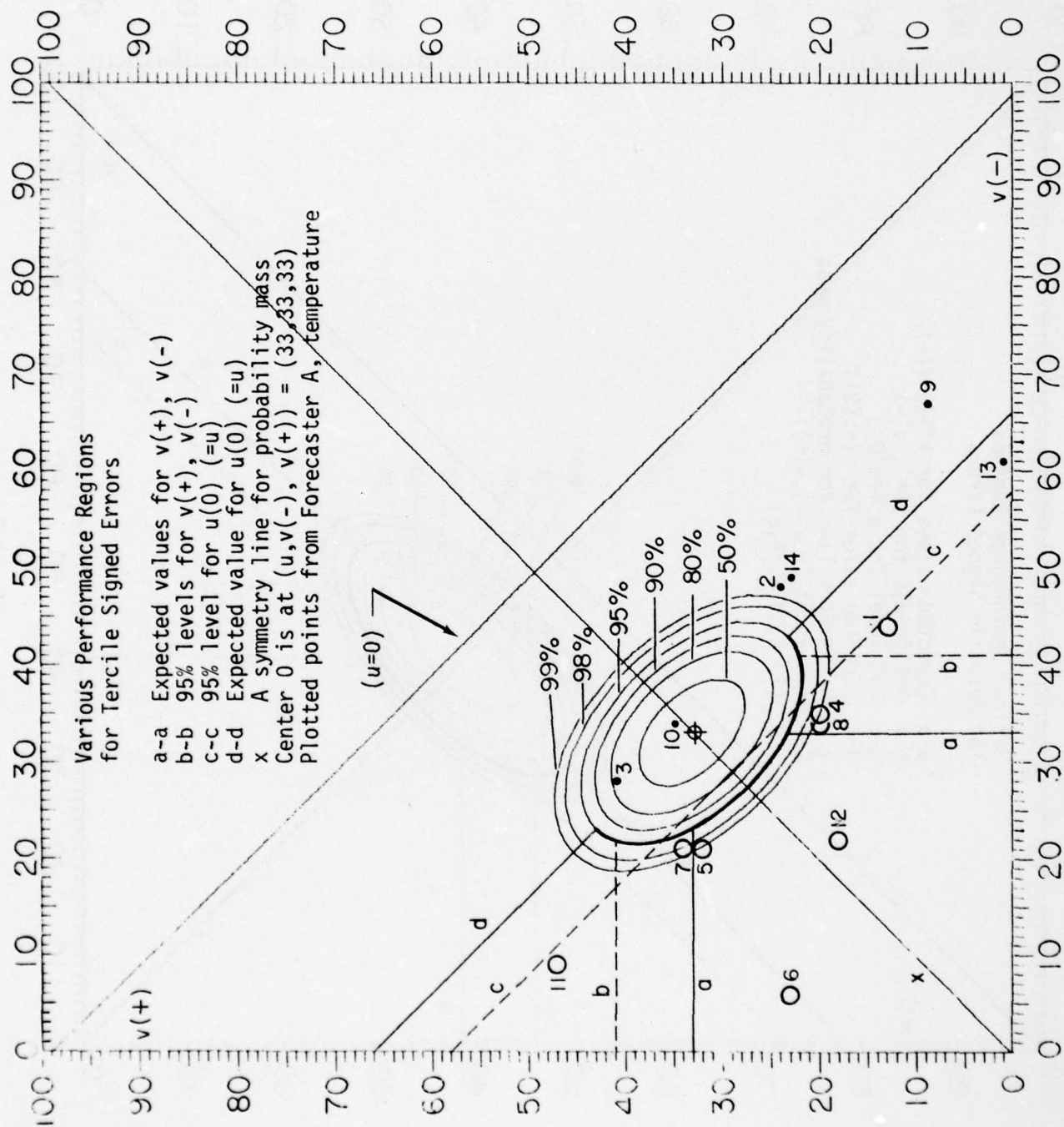


Figure 4

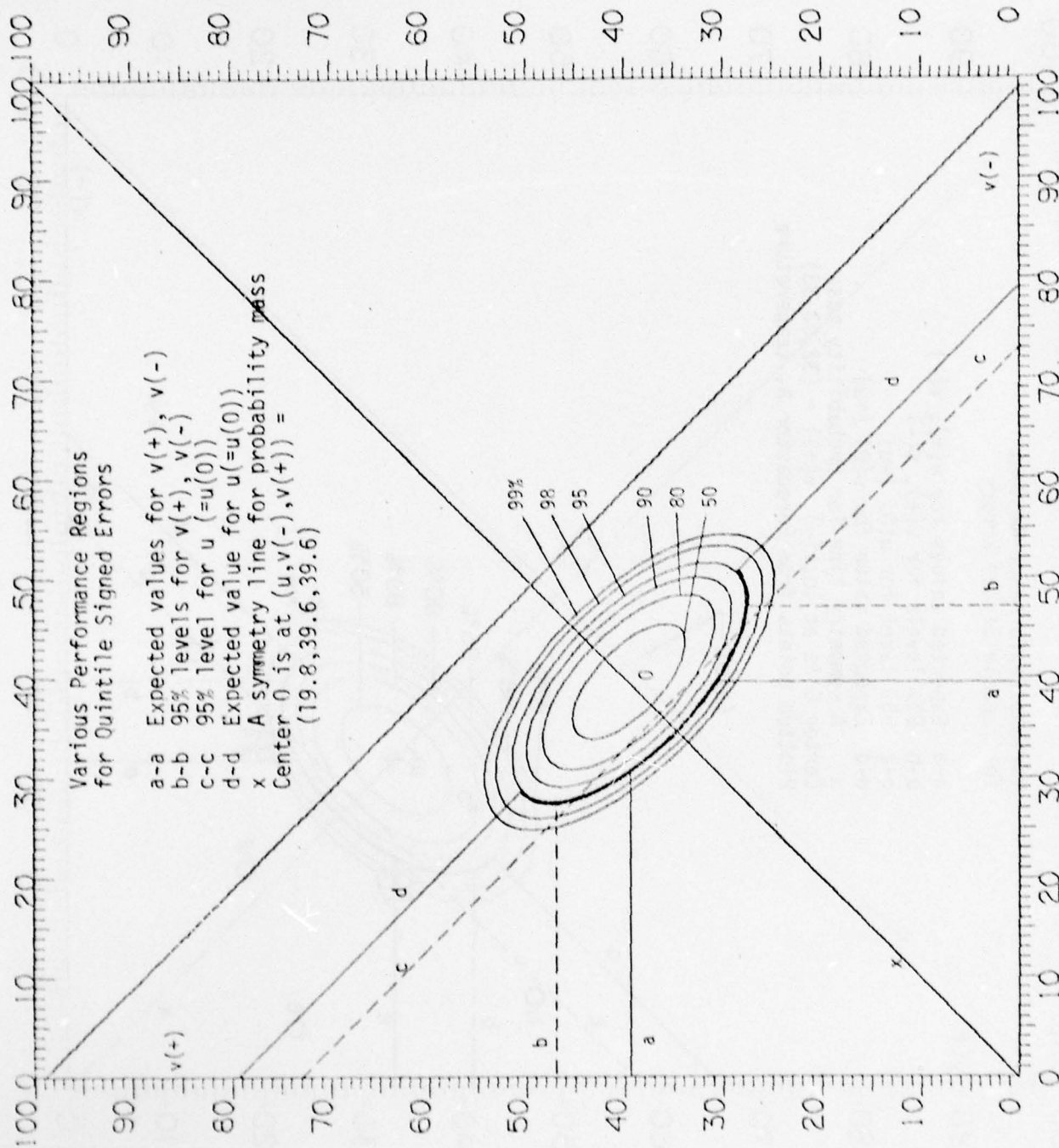


Figure 5

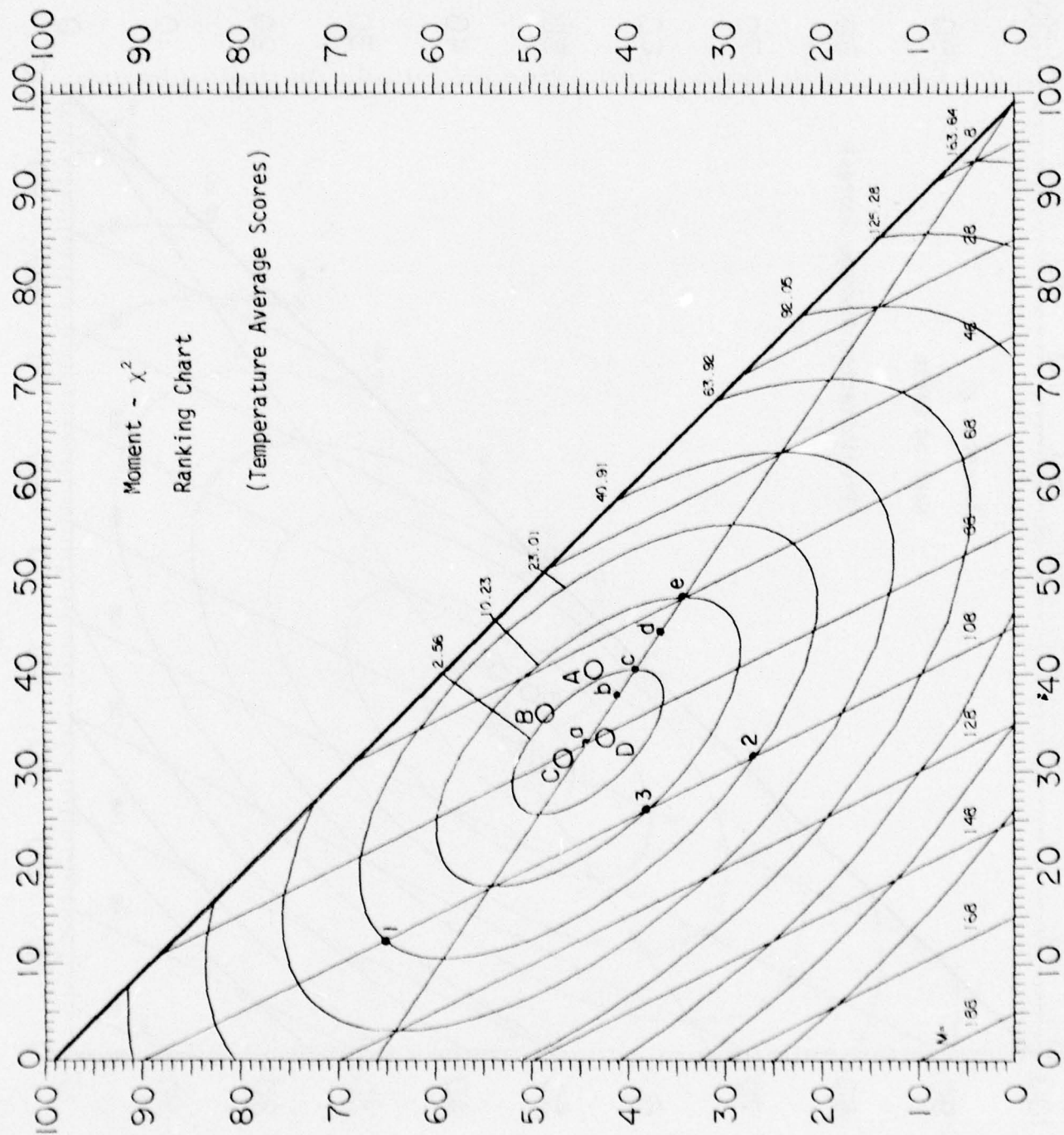


Figure 6



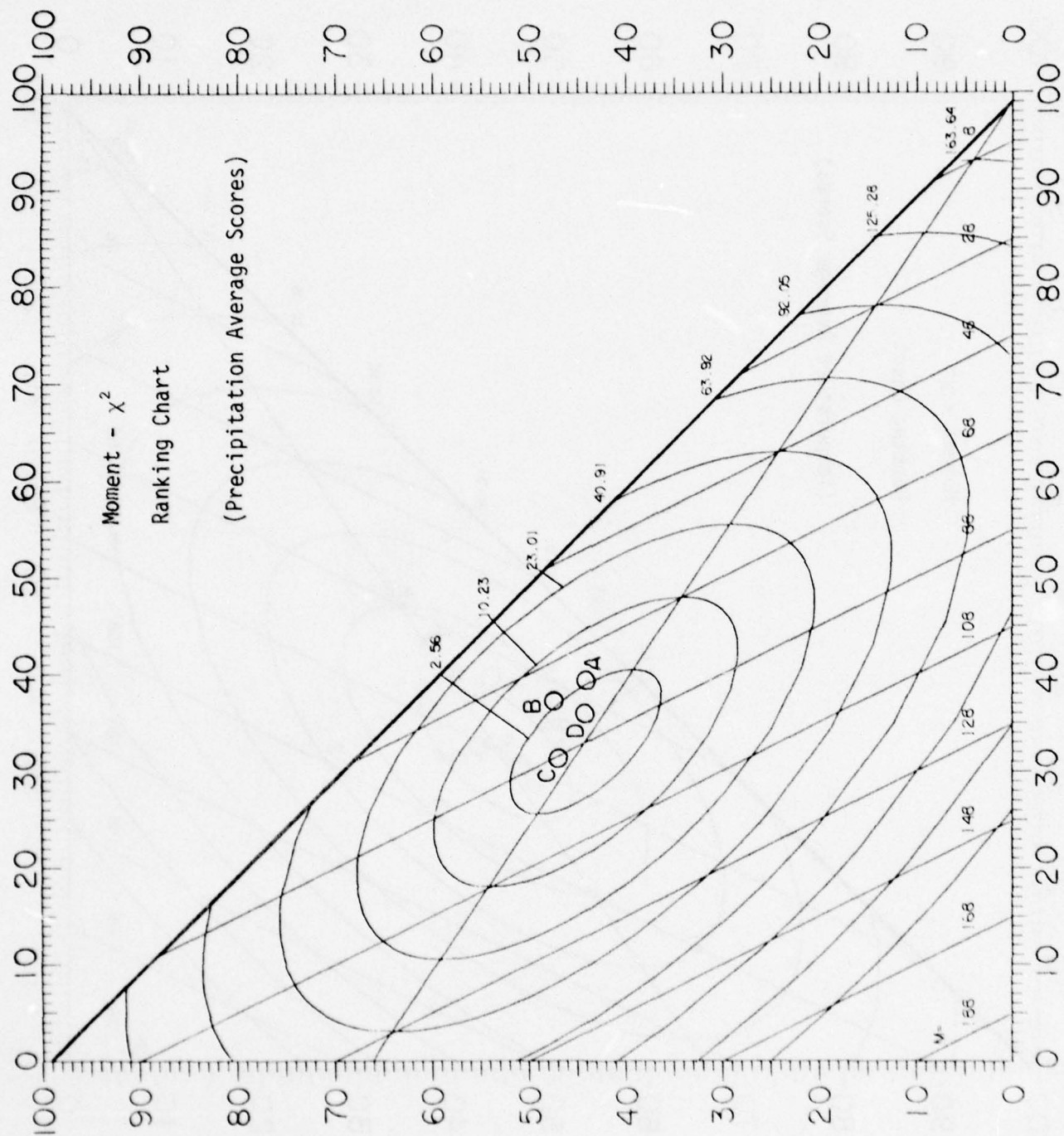


Figure 6a

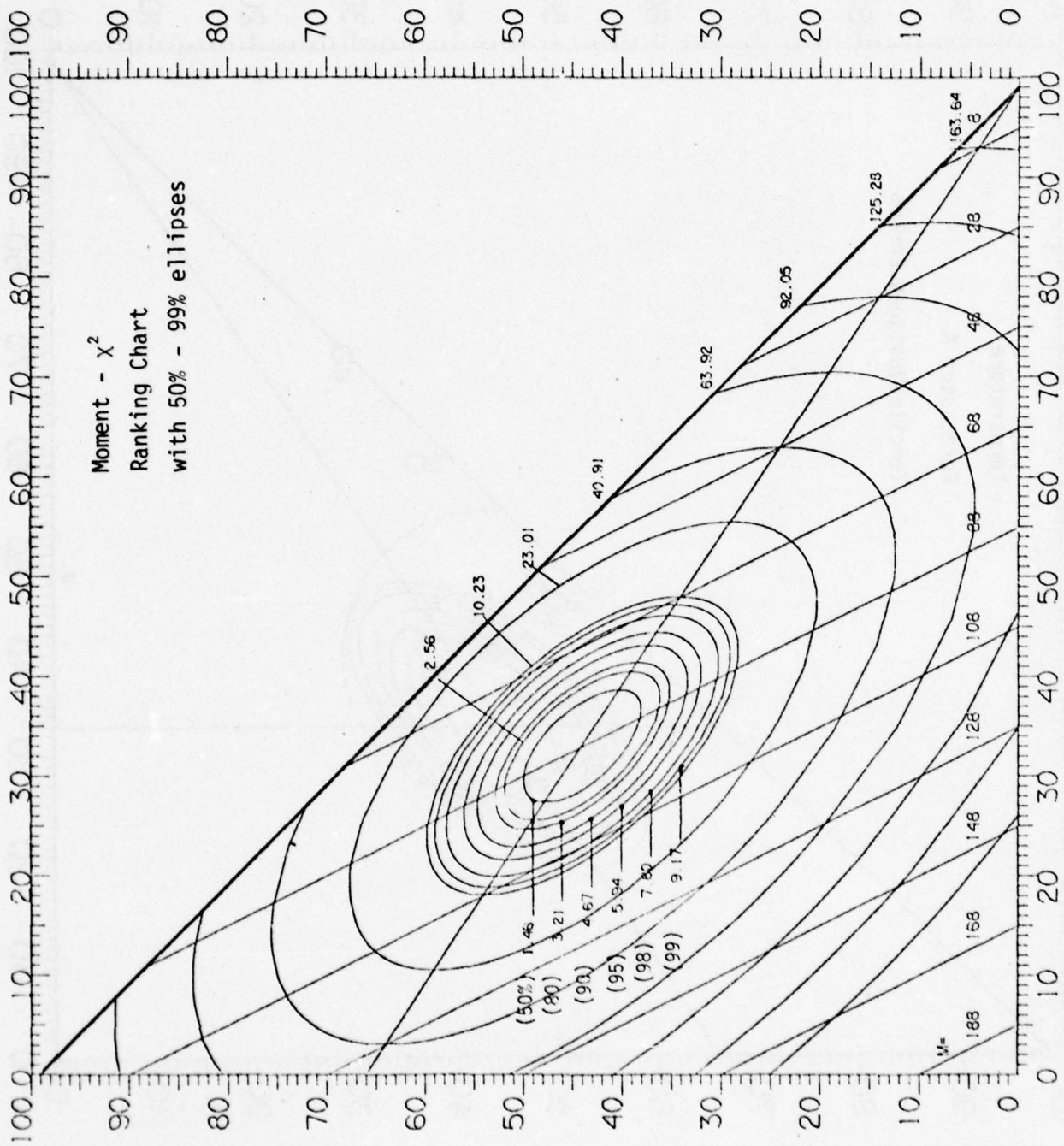
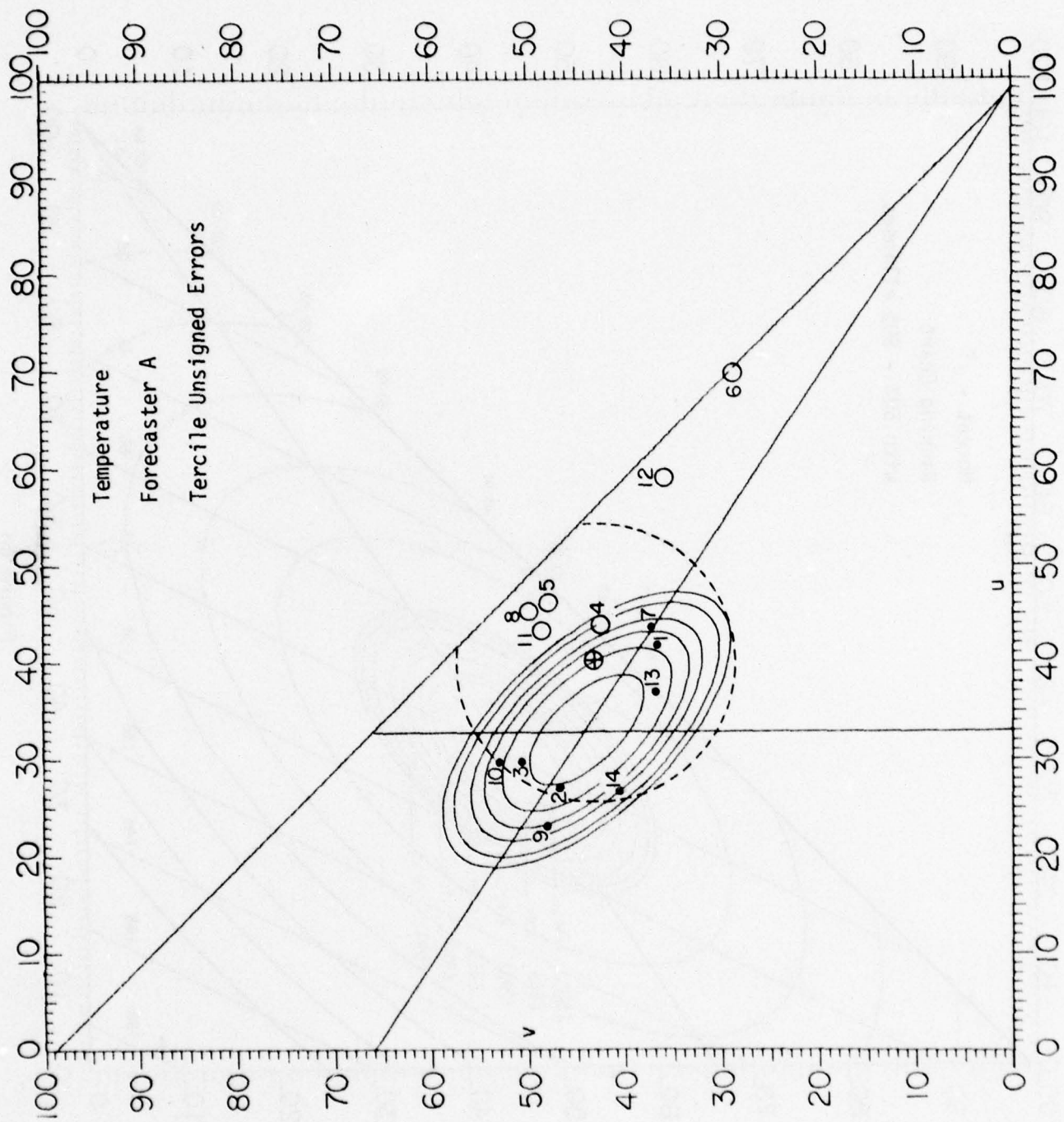
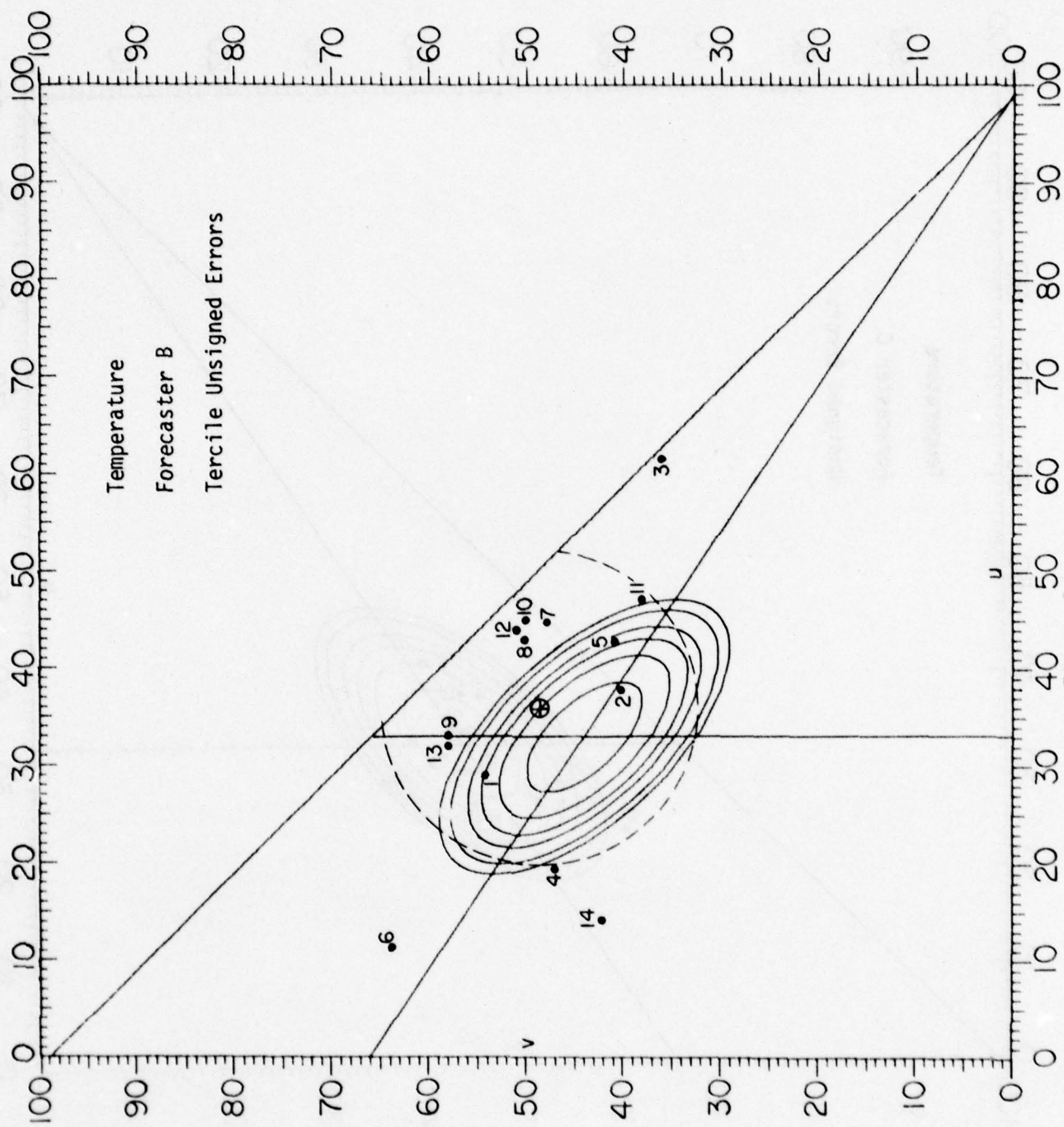
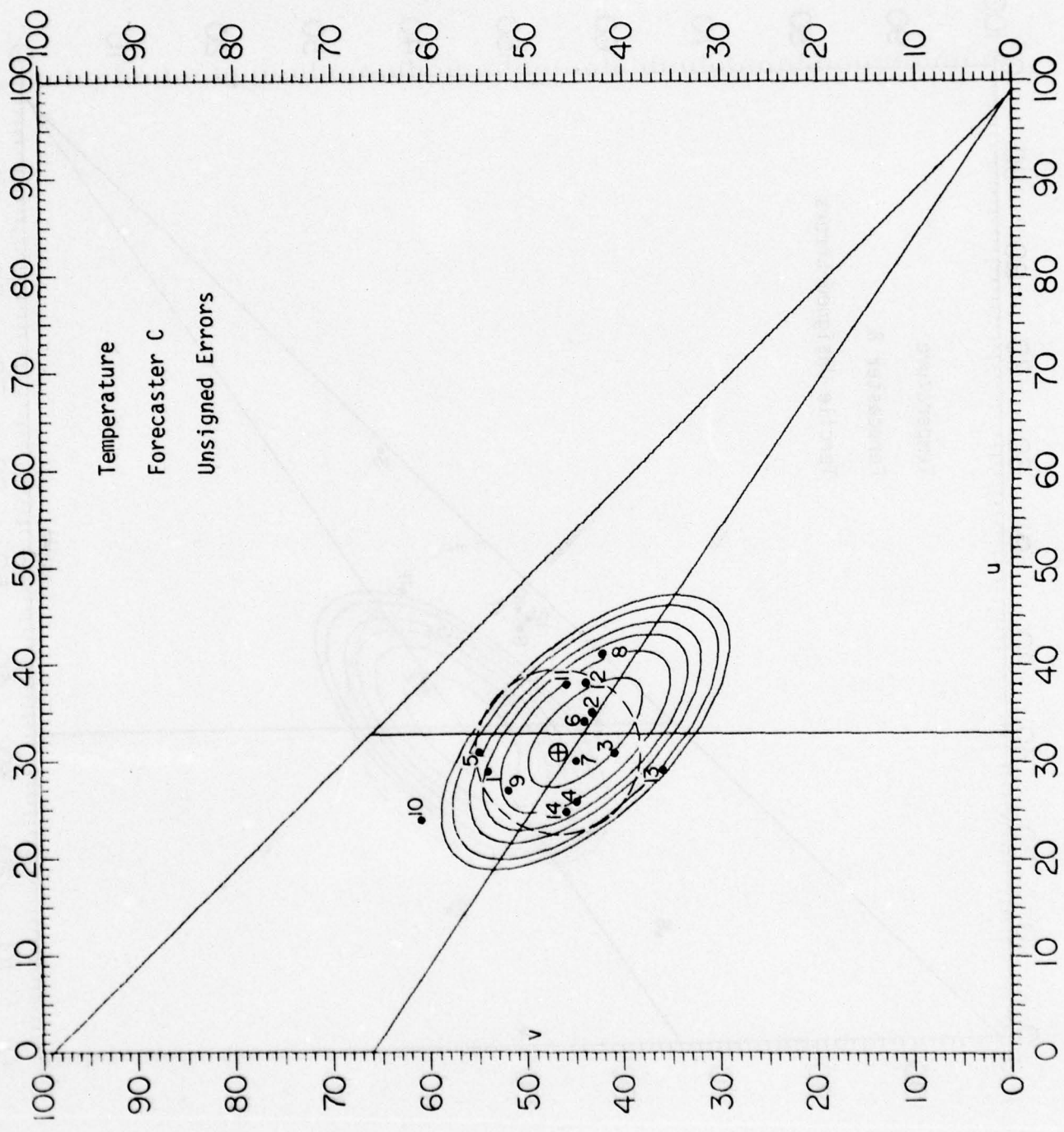


Figure 6b









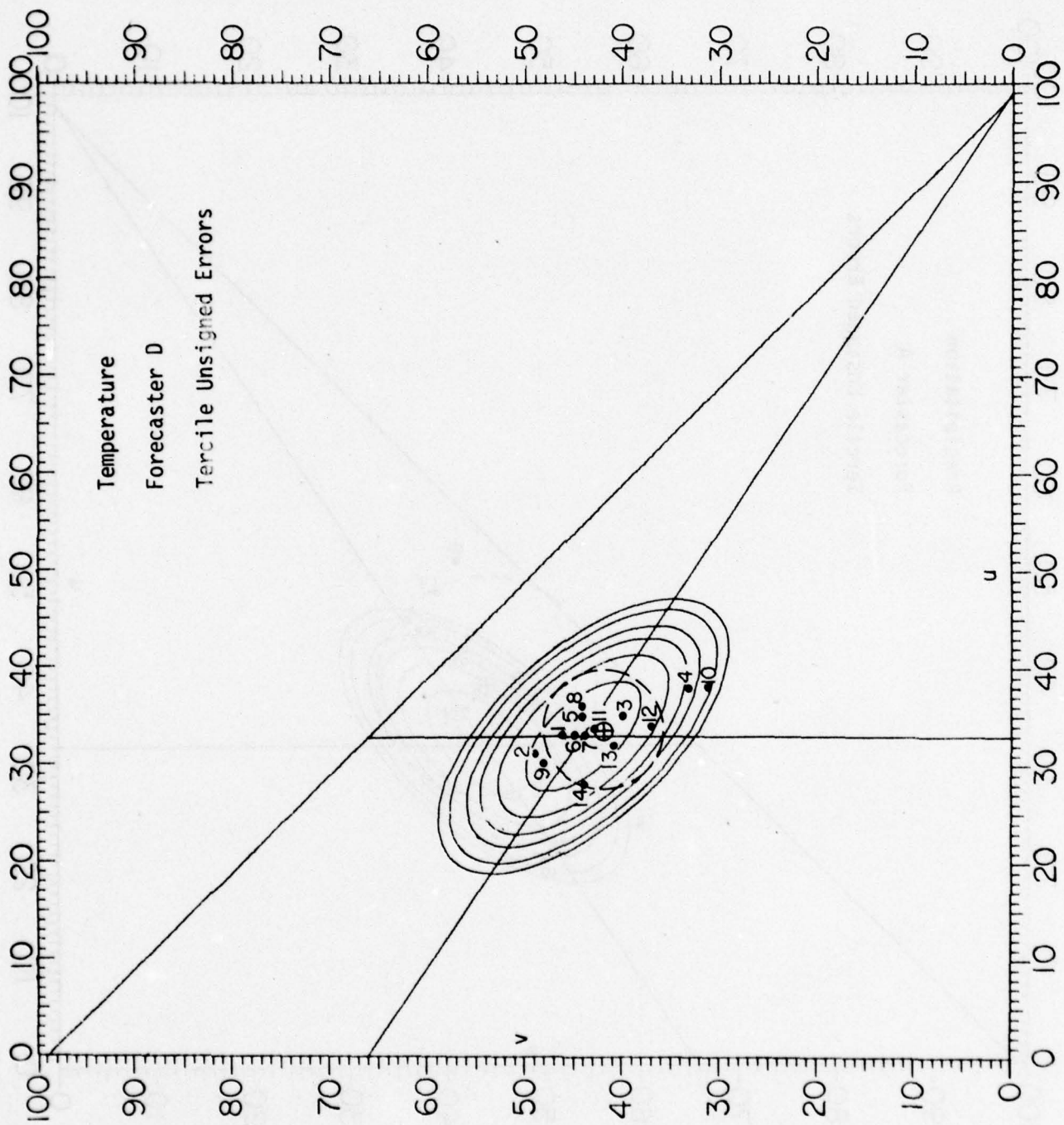


Figure 10



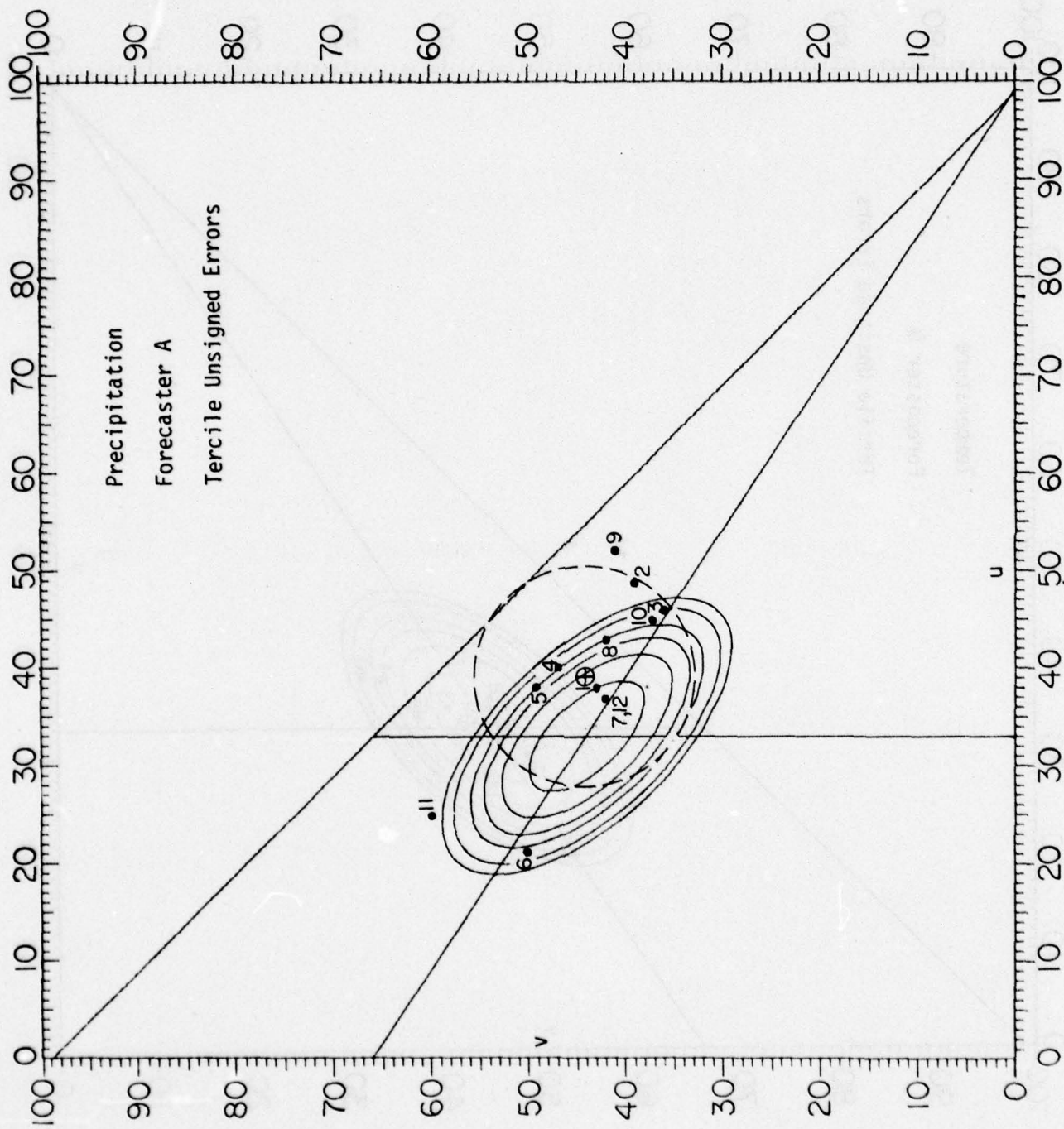
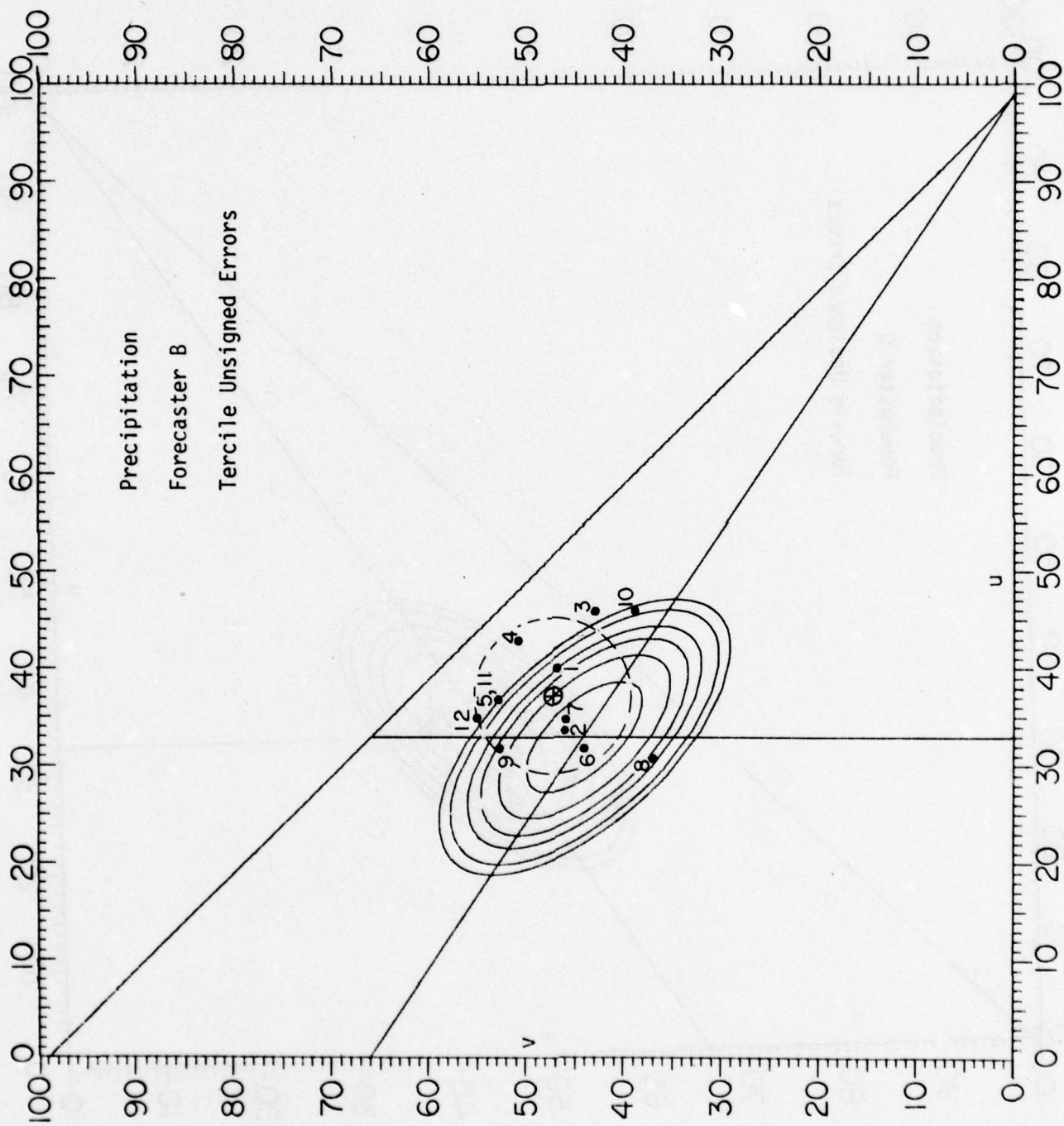


Figure 11



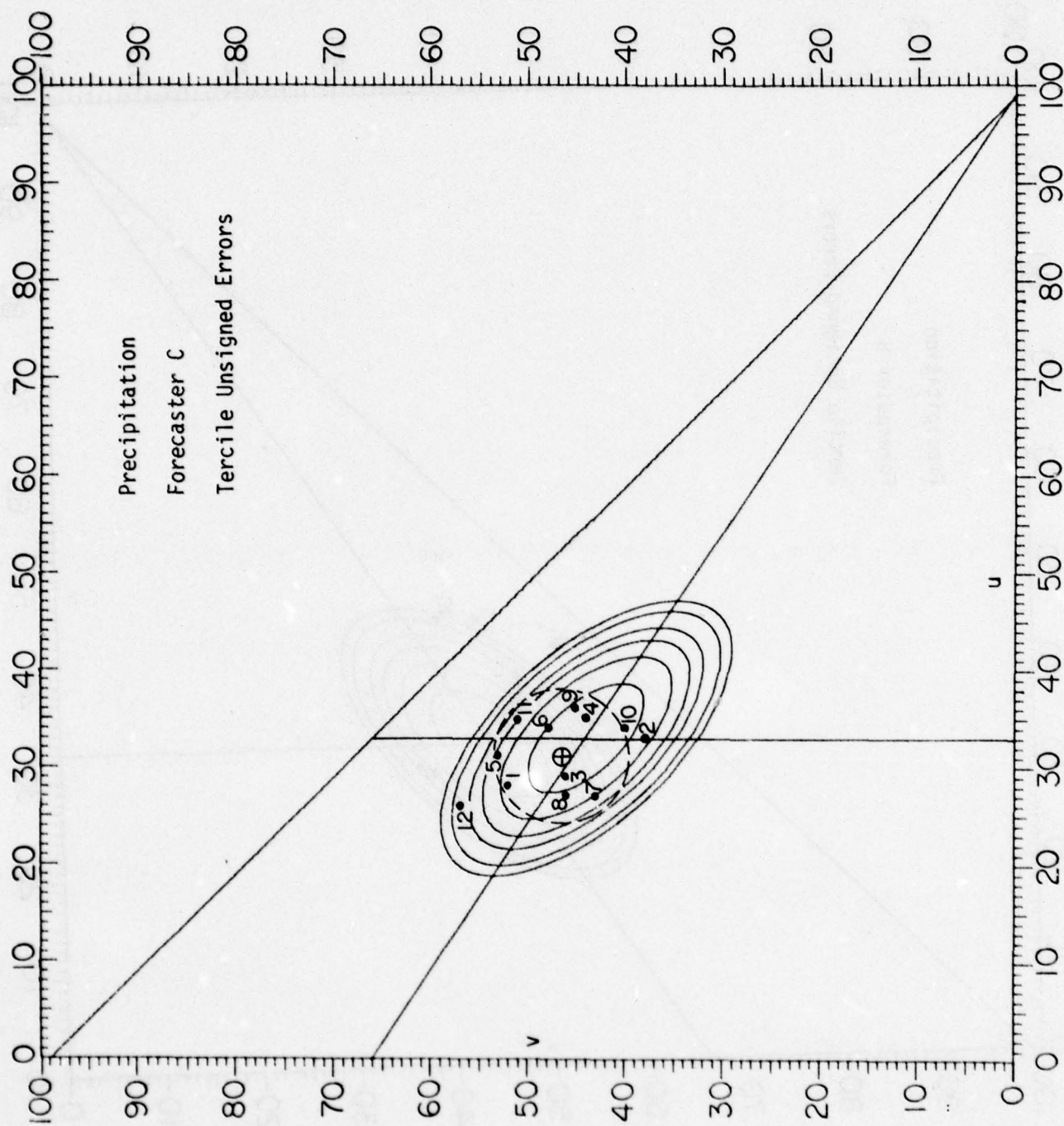


Figure 13



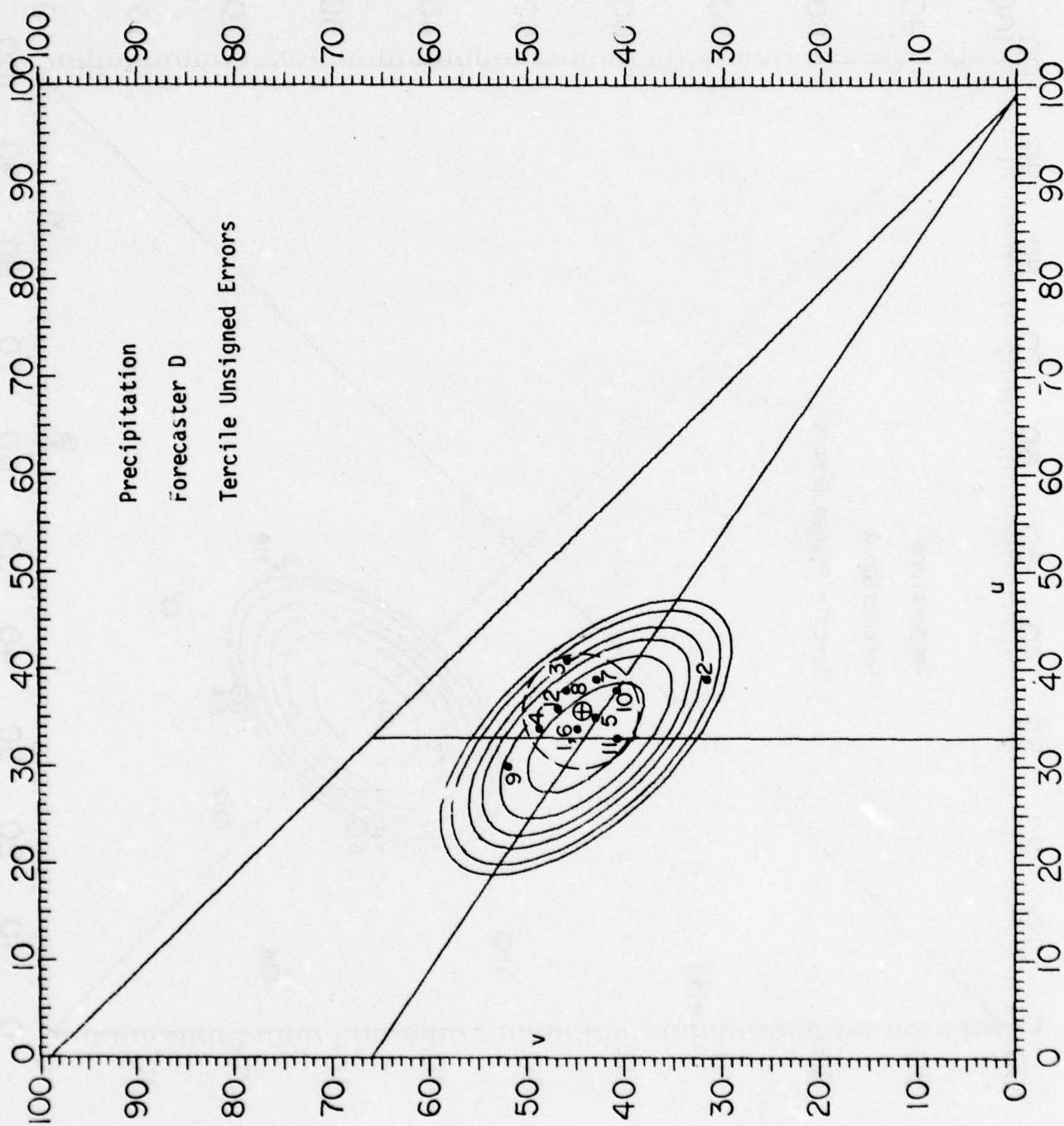


Figure 14

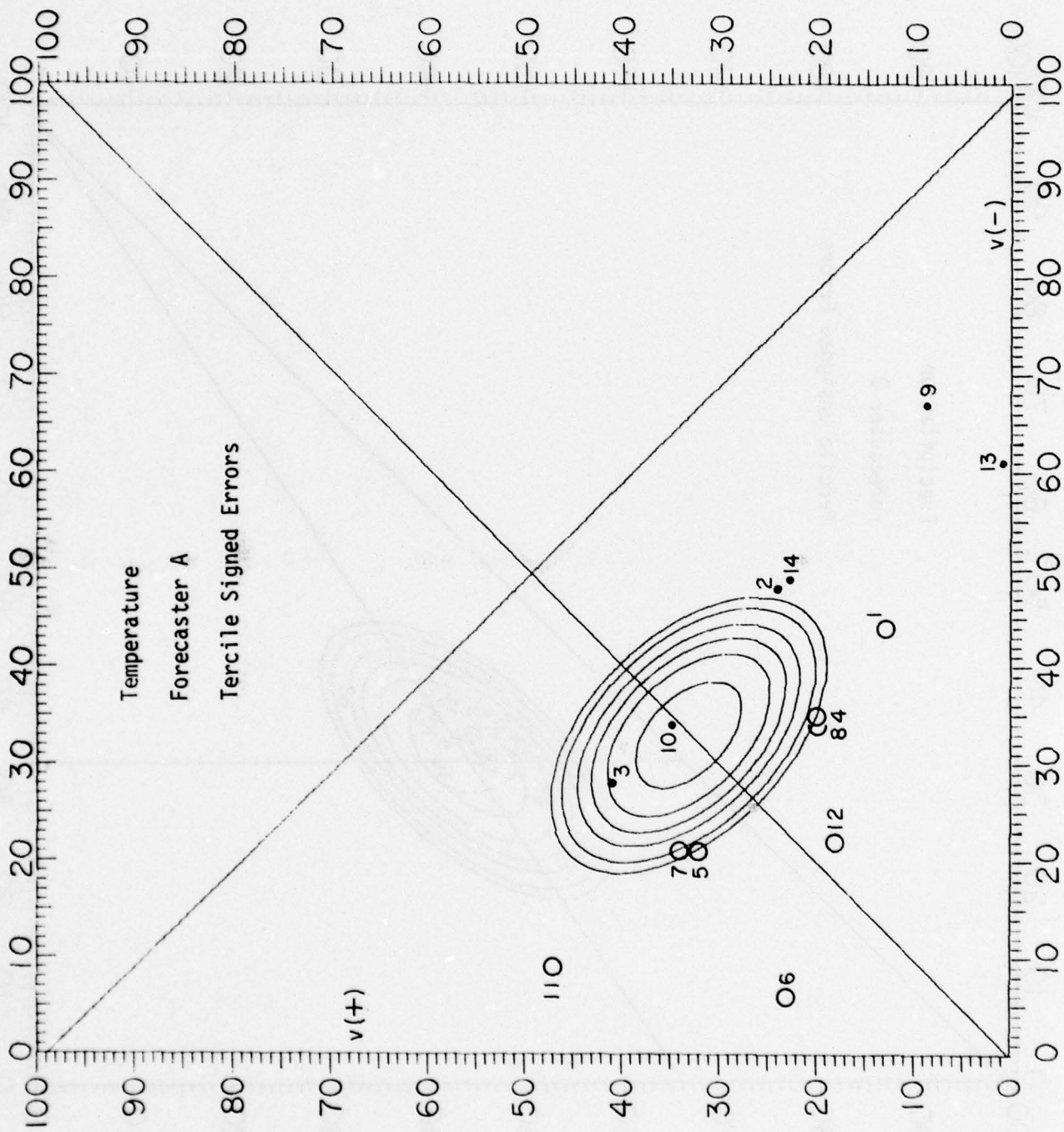
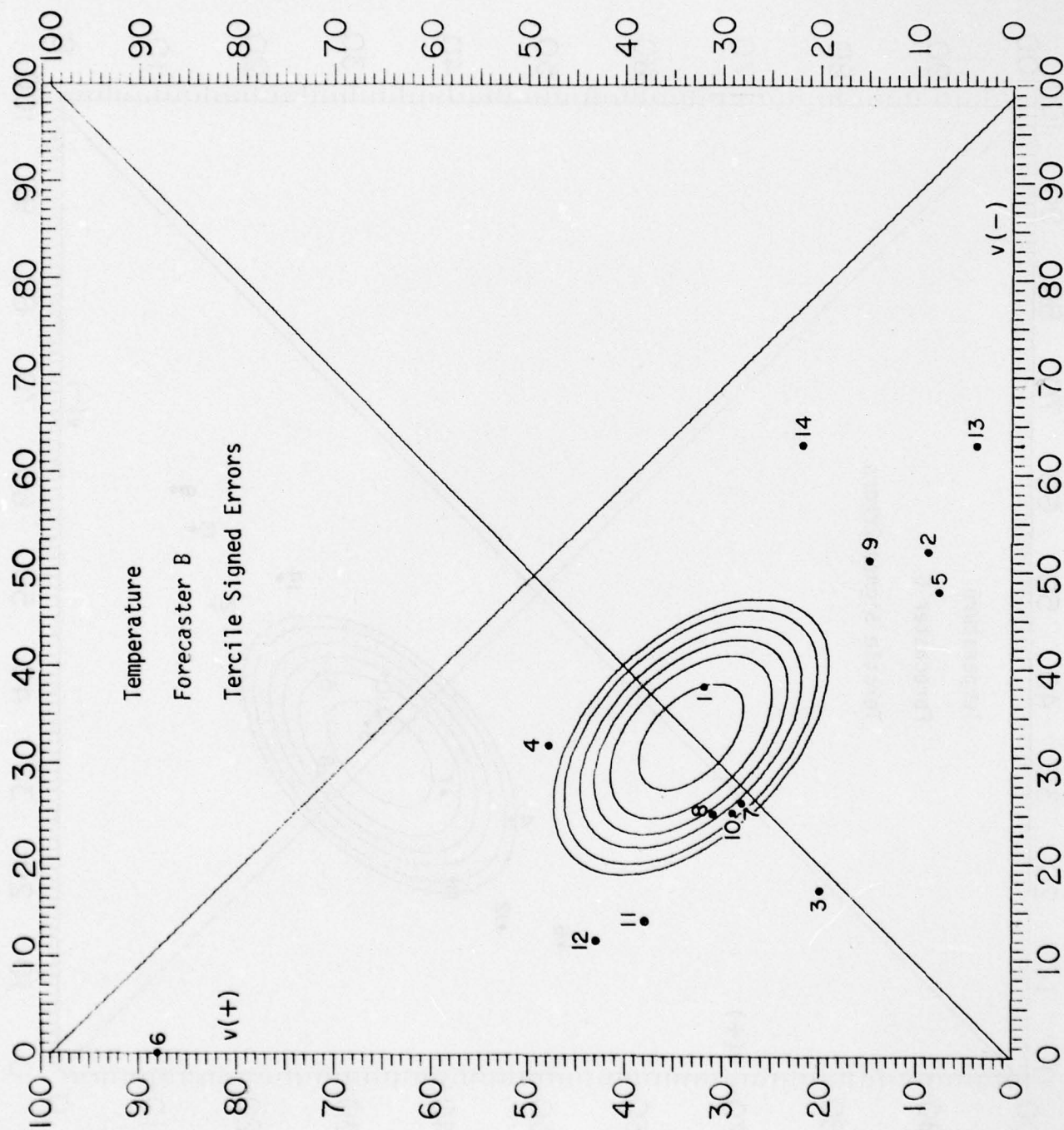


Figure 15





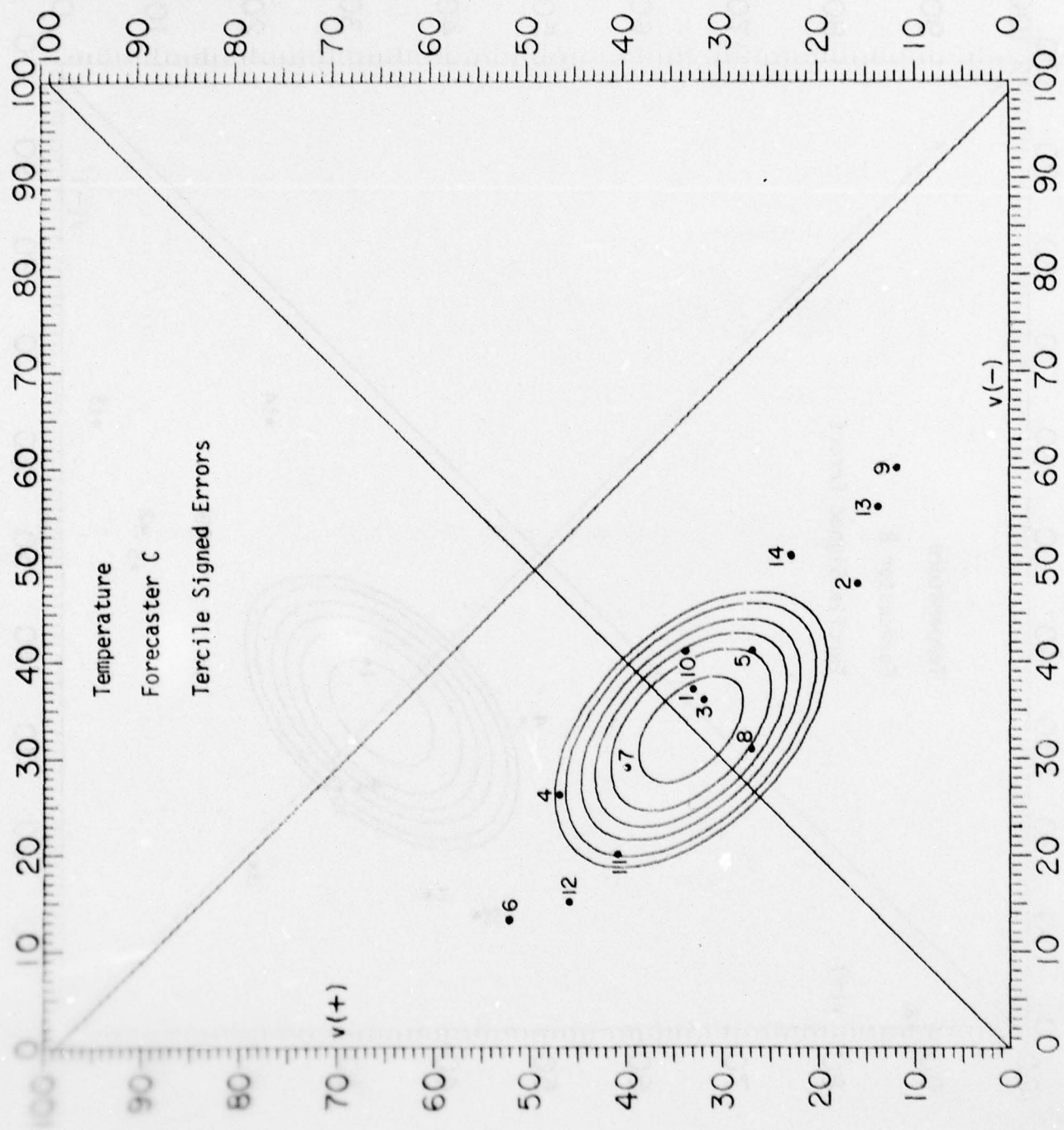


Figure 17

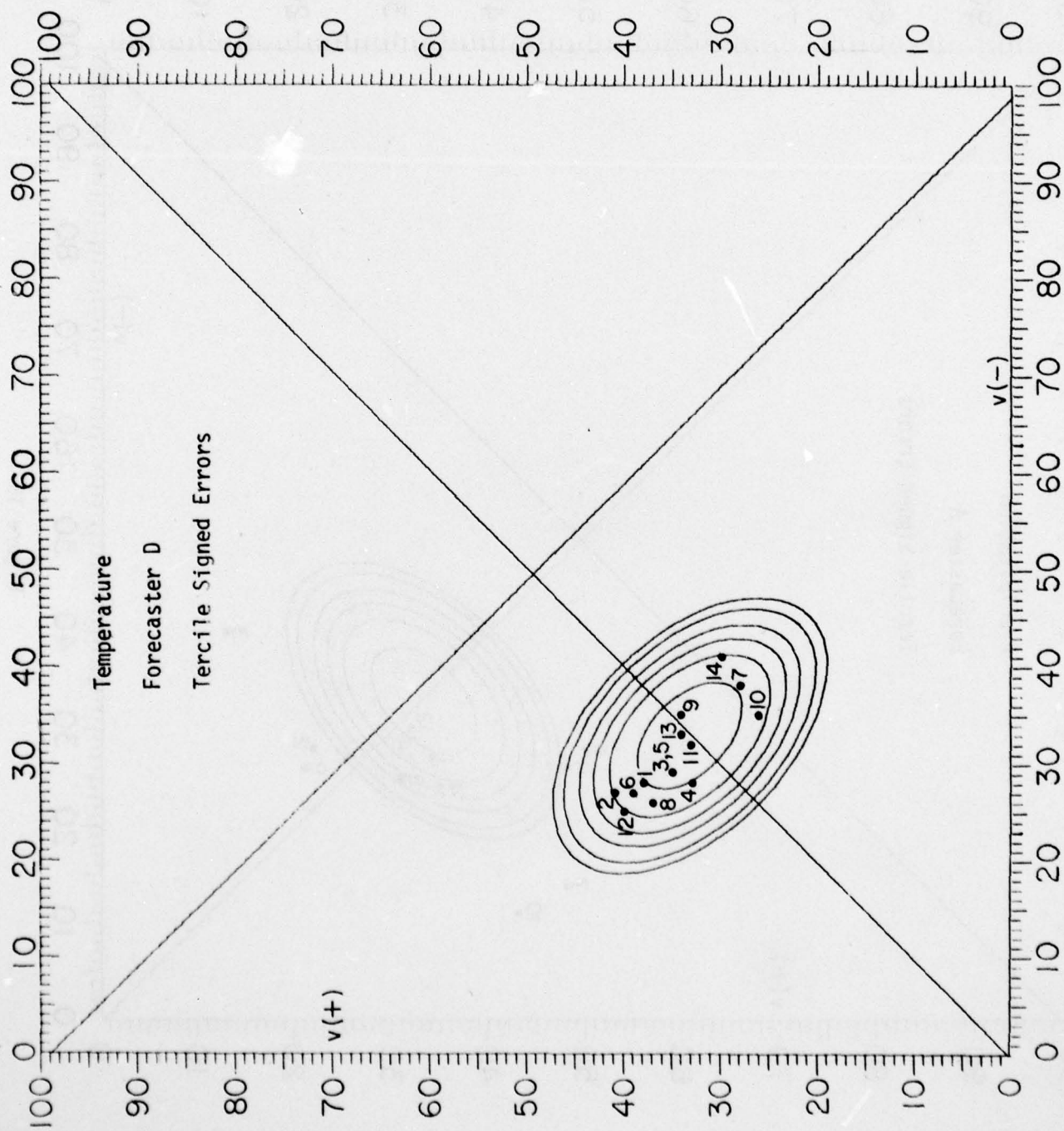


Figure 18

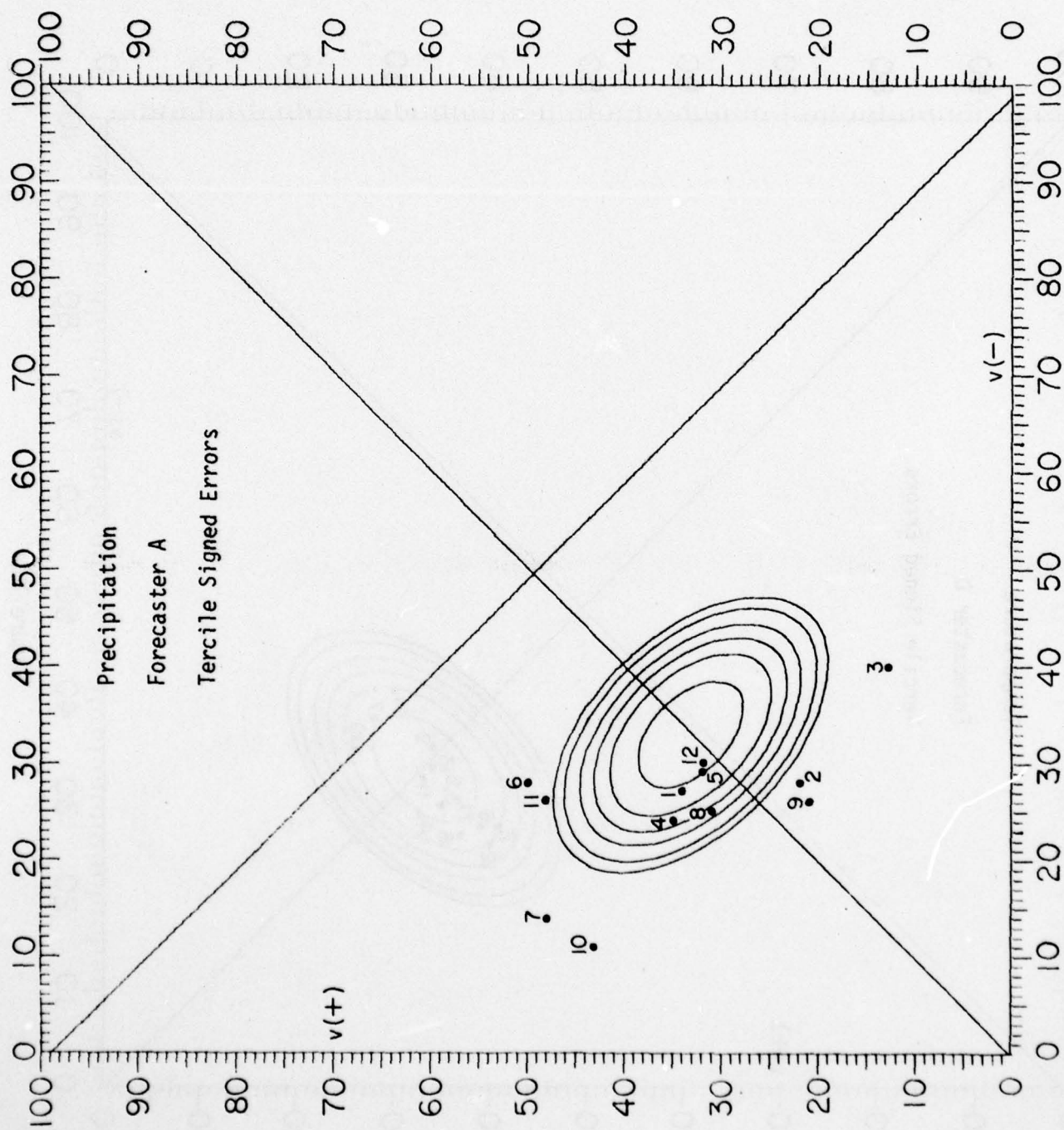


Figure 19



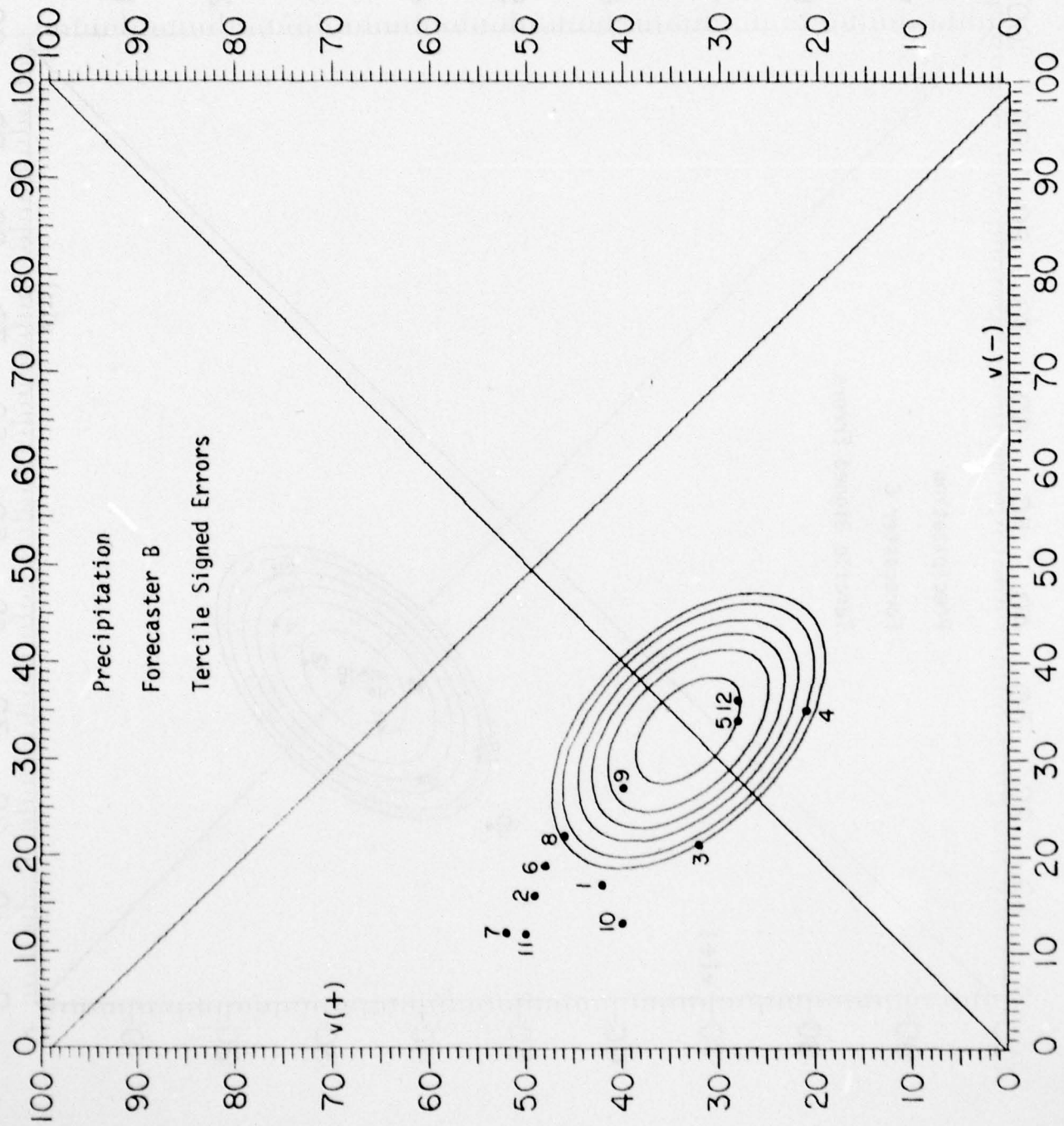


Figure 20

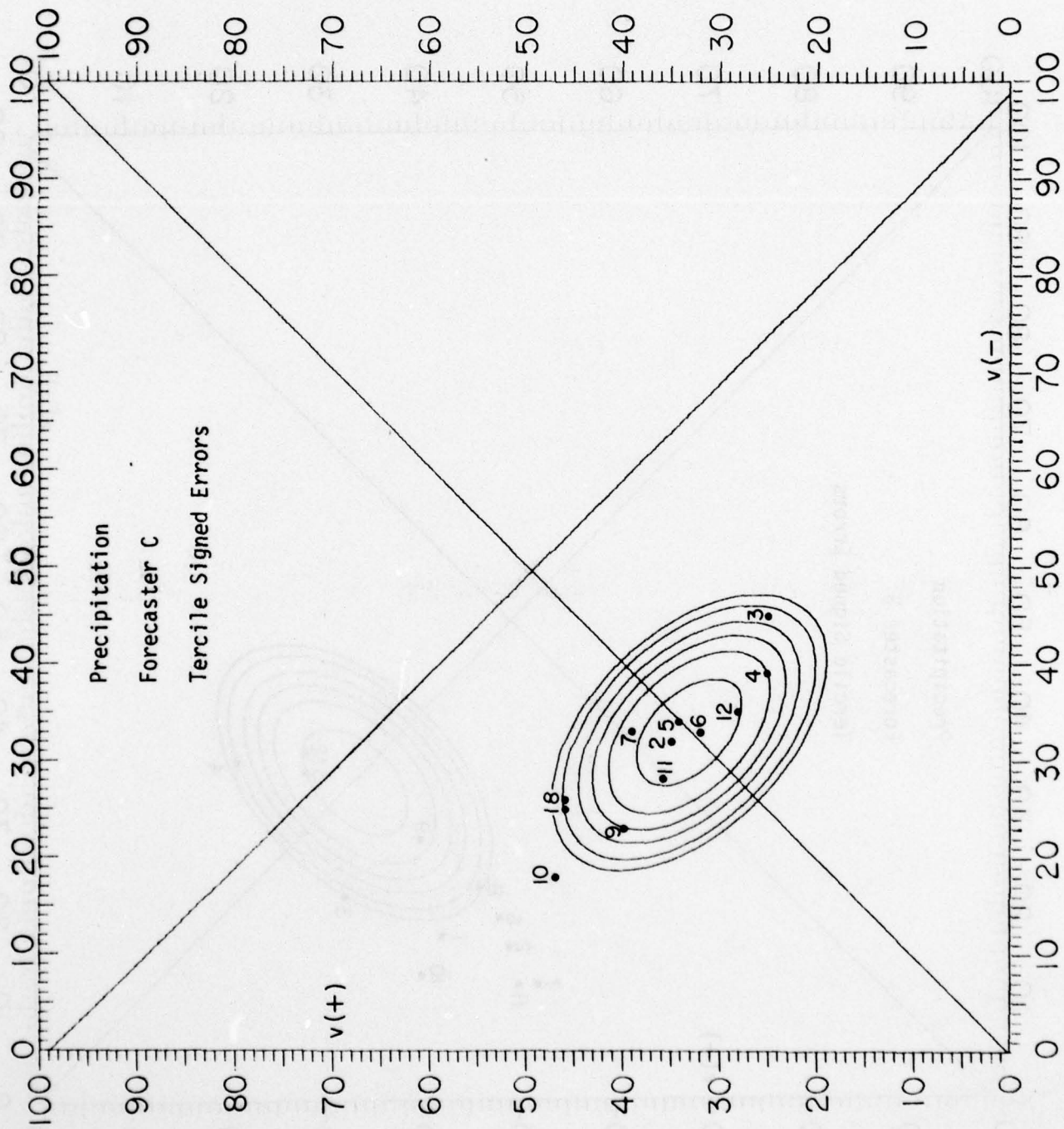


Figure 21

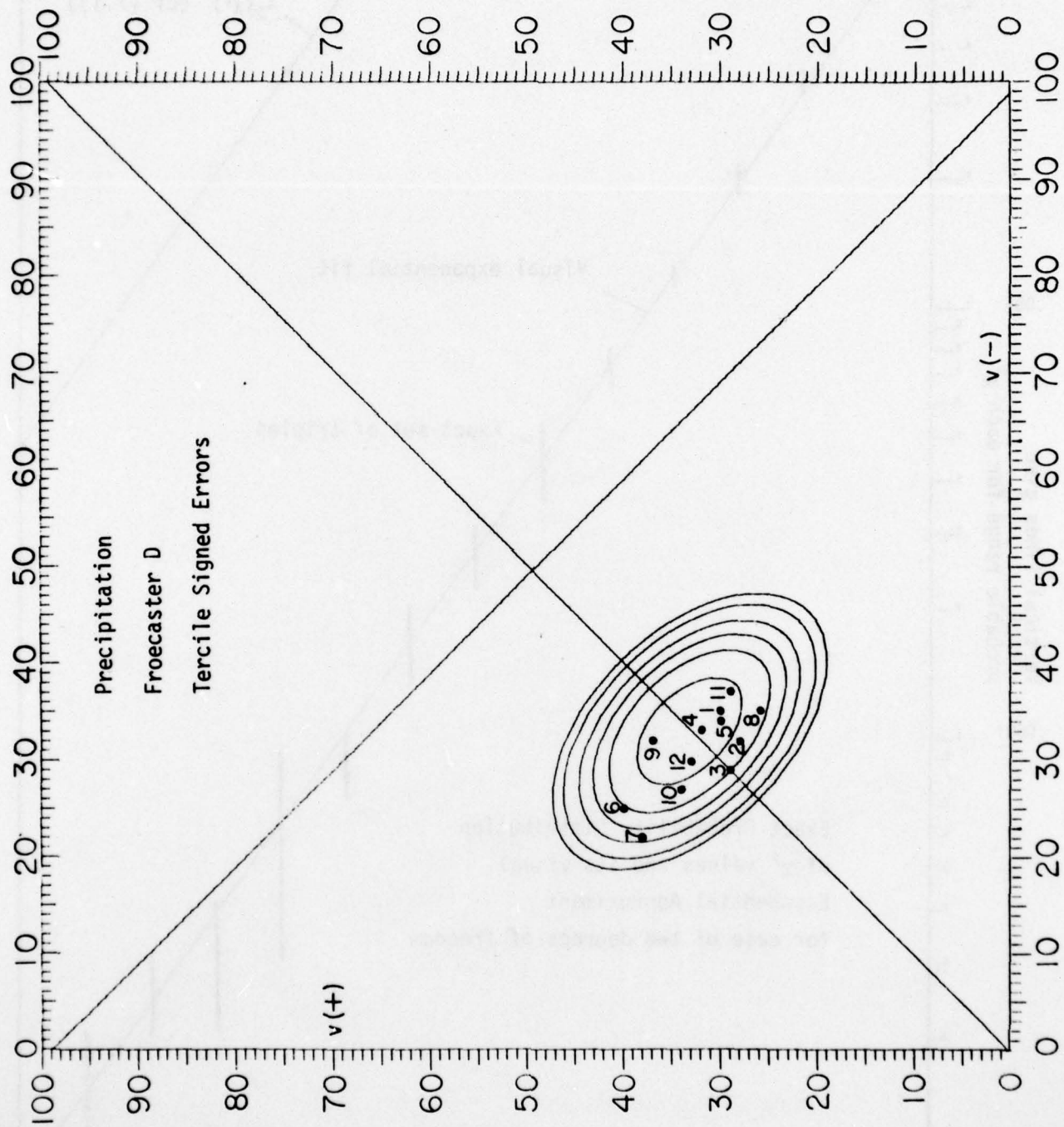


Figure 22



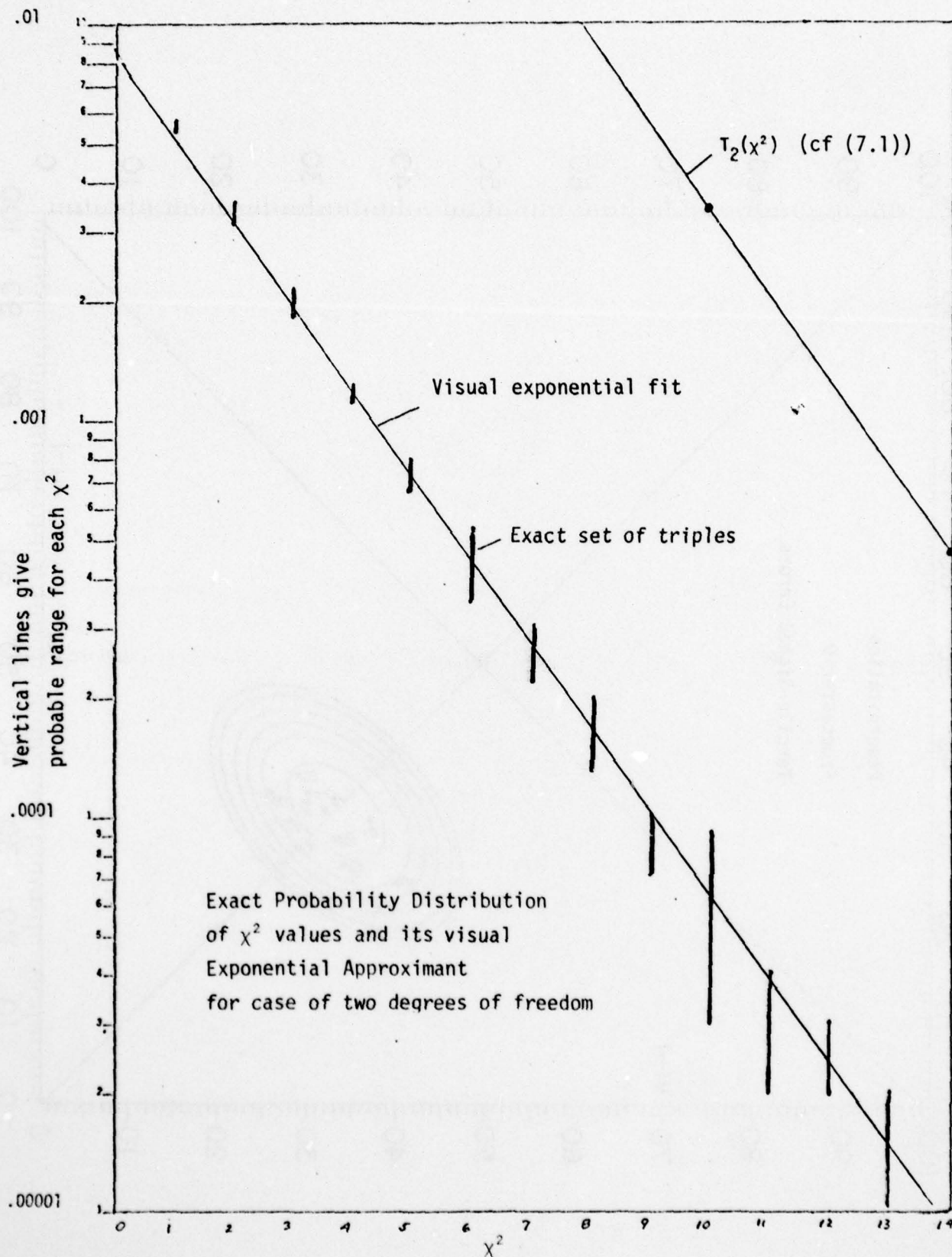


Figure 23

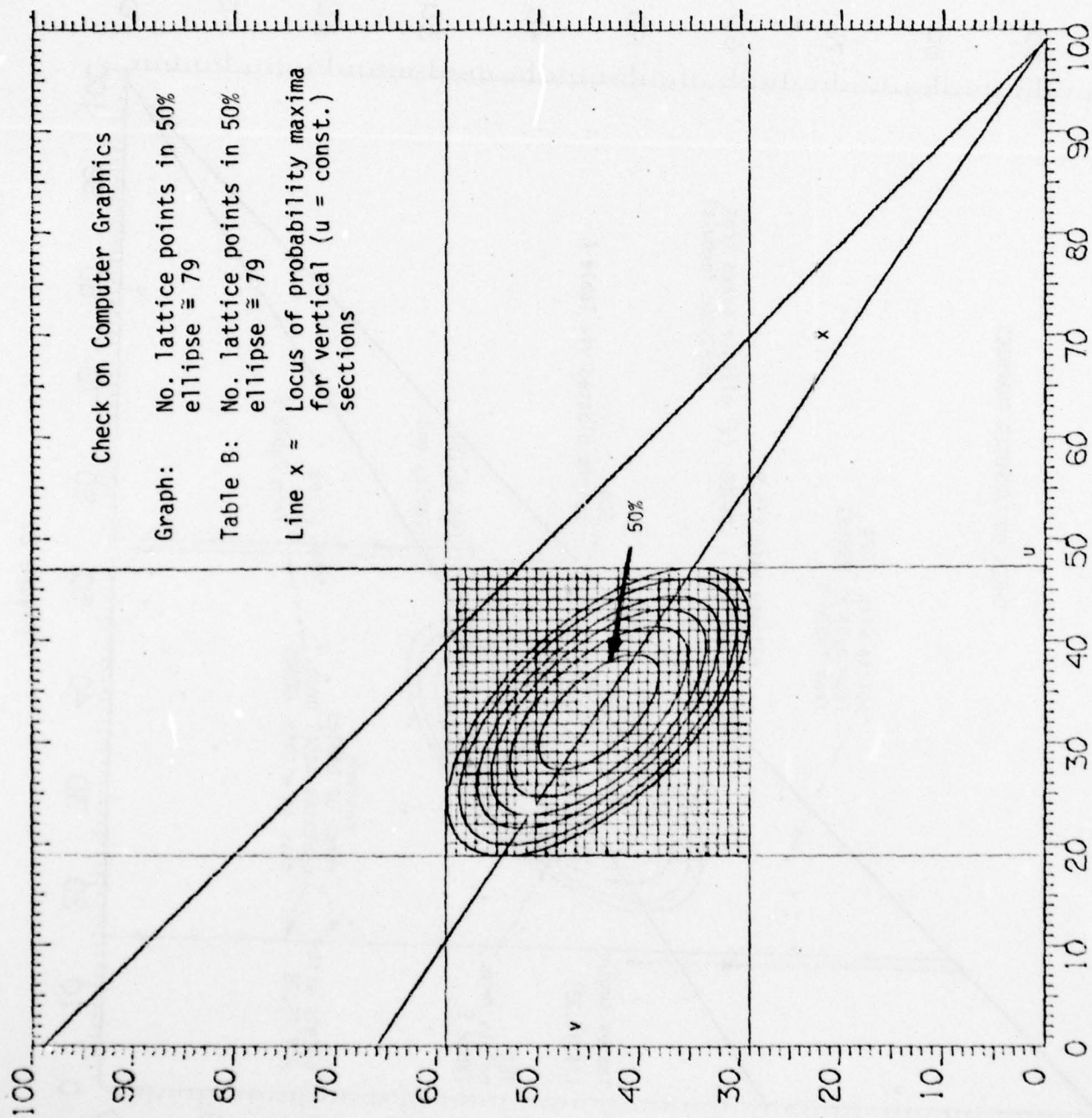


Figure 24

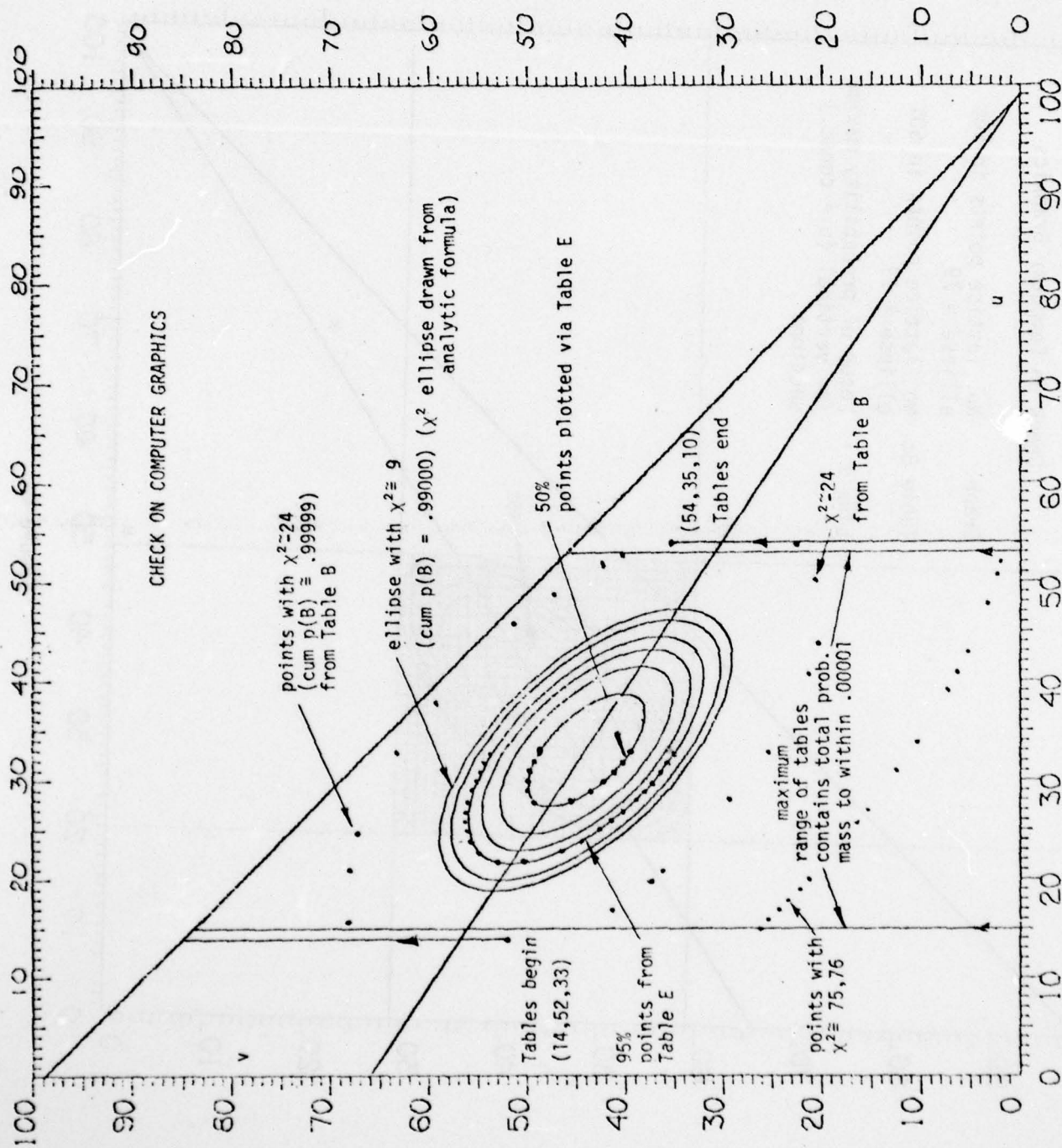


Figure 25



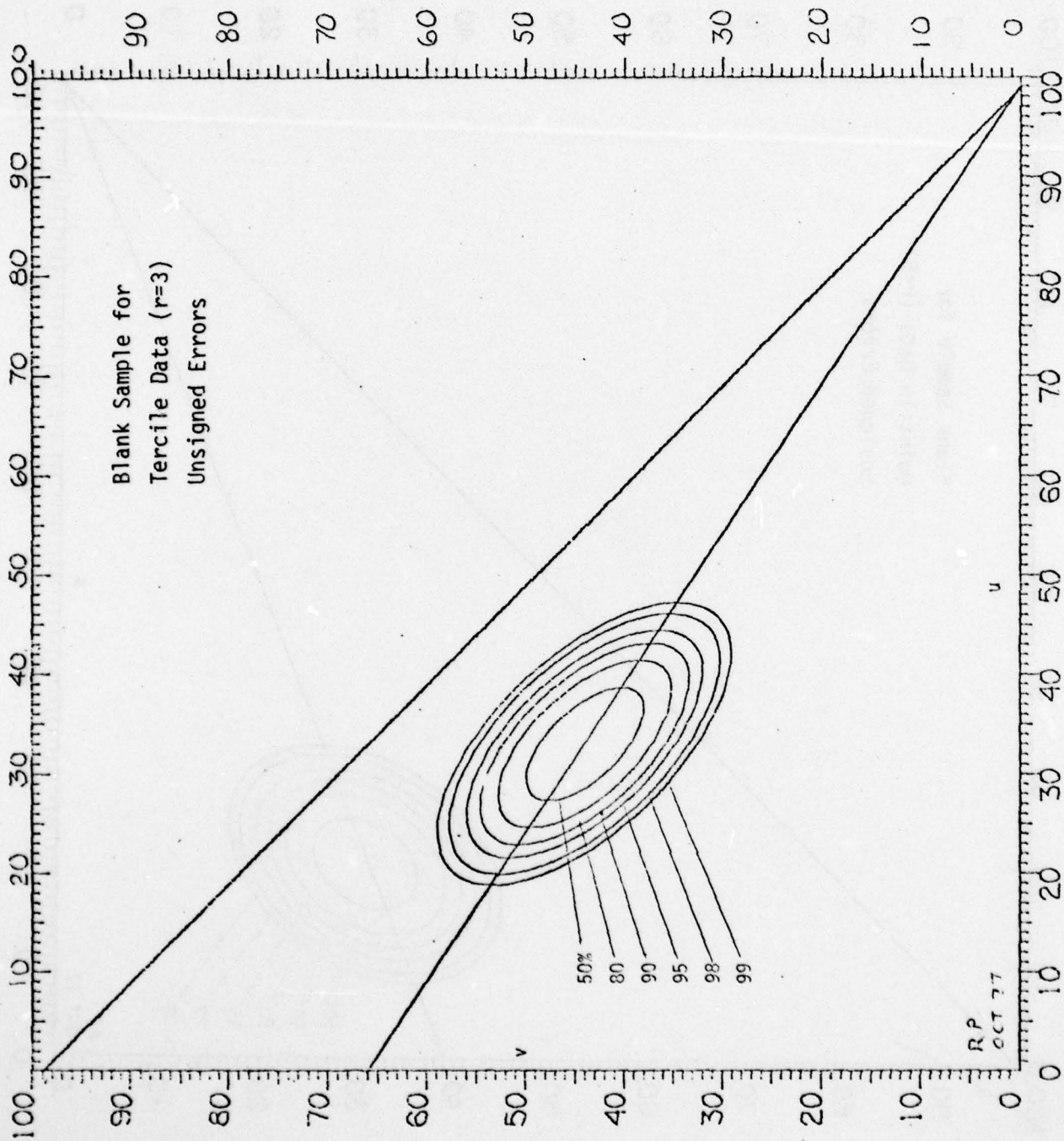


Figure 26

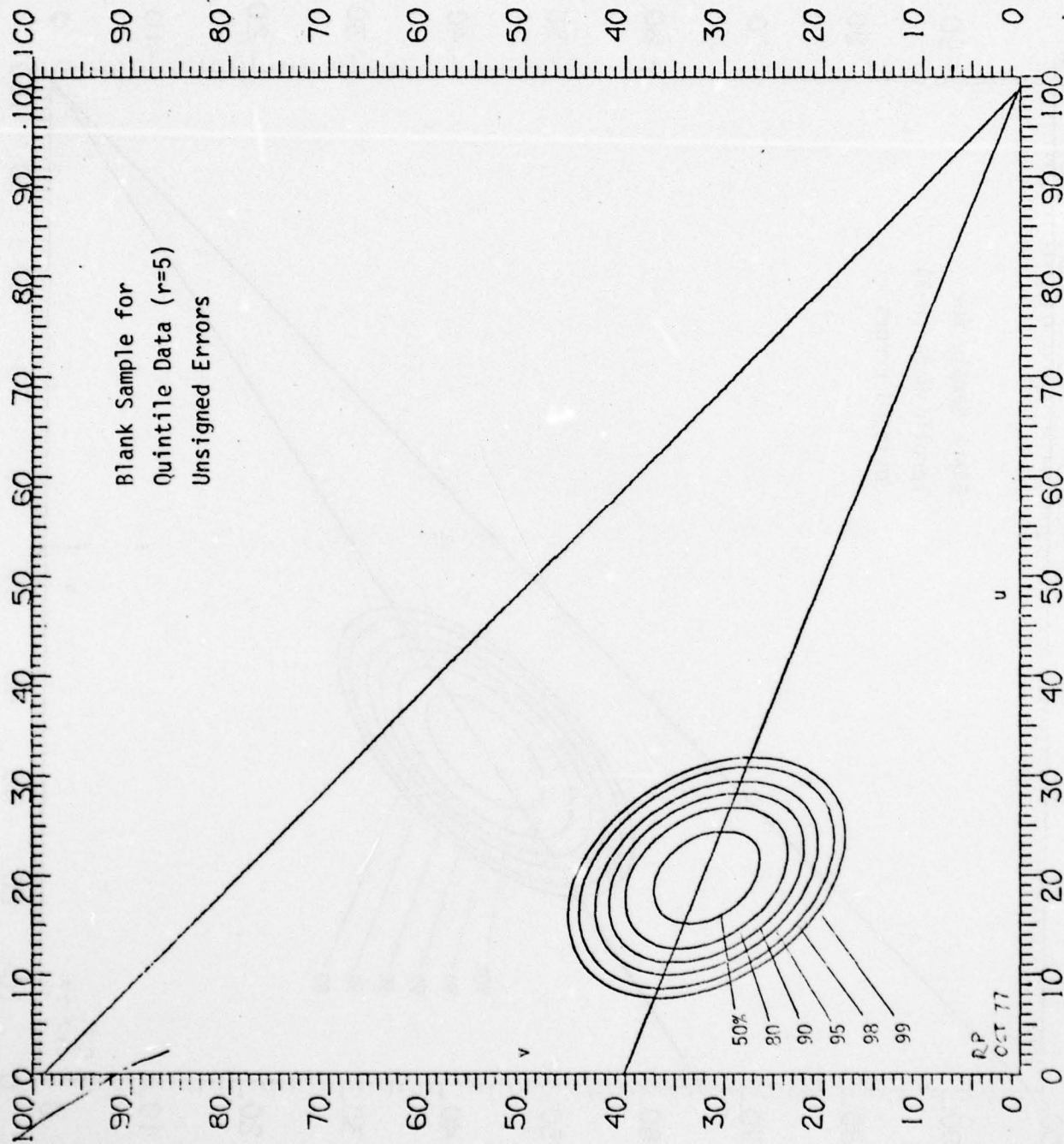


Figure 27

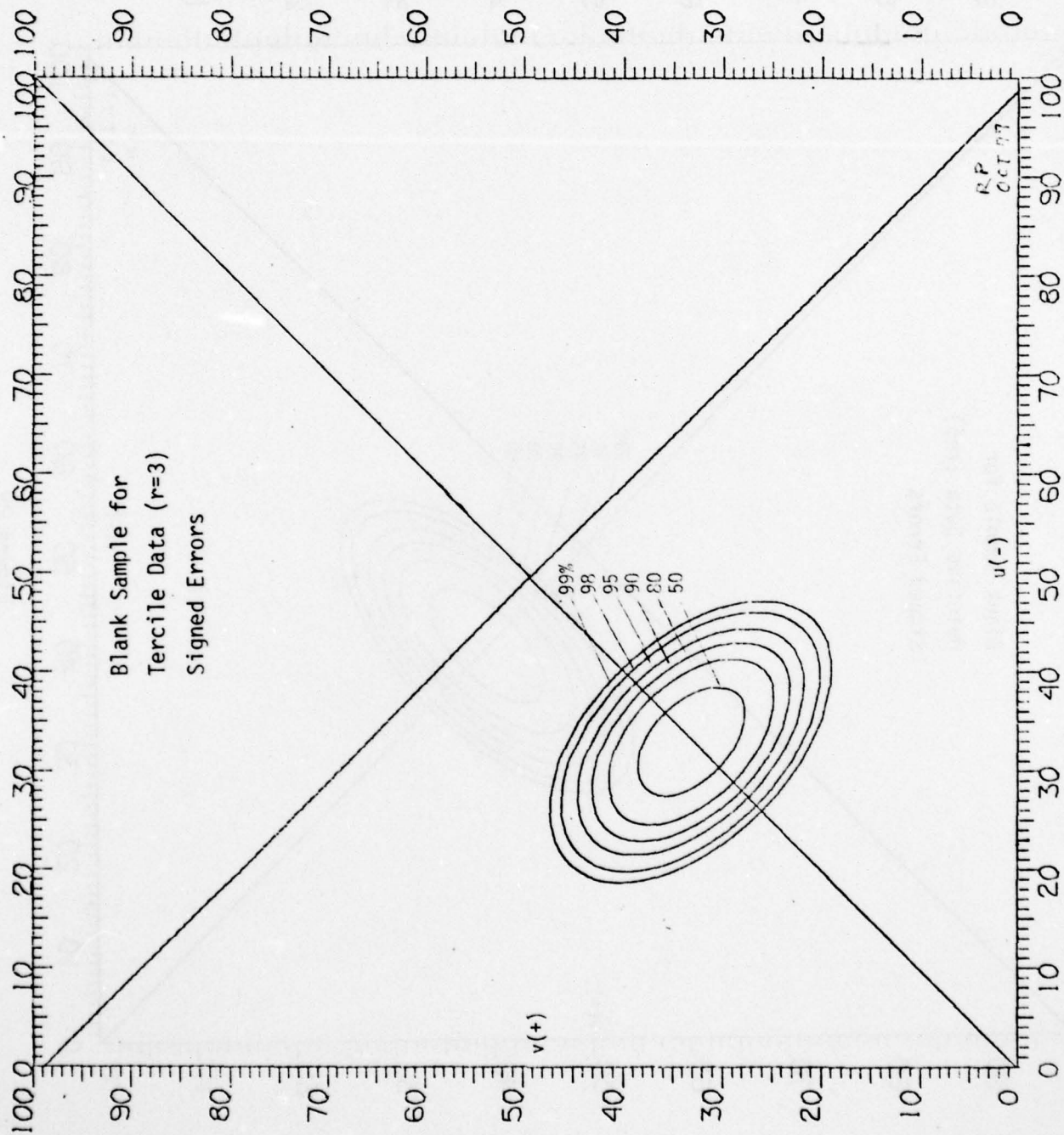


Figure 28



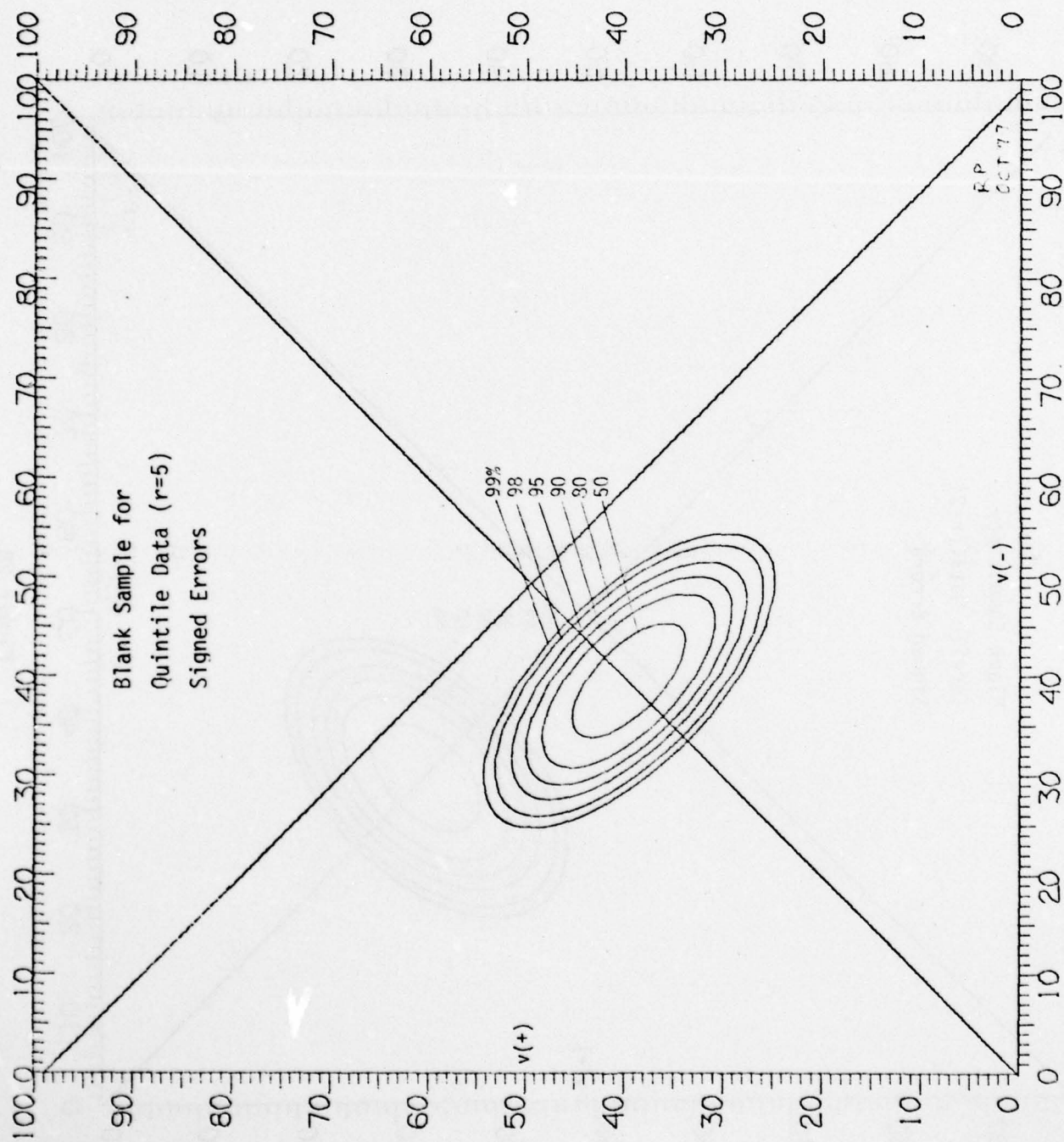


Figure 29

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TABLE A

CHI SQUARE = P(1/3), P(4/9), P(2/27) N=99

U	V	W	X2	P(A)	CUM P(A)	U	V	W	X2	P(A)	CUM P(A)
15	52	33	17.8939	.00000	.00001	15	16	68	123.6182	.00000	.00001
15	53	34	17.3258	.00000	.00001	15	17	67	118.4318	.00000	.00001
15	54	35	16.8939	.00000	.00001	15	18	66	113.1818	.00000	.00001
15	55	36	16.5985	.00000	.00001	15	19	65	108.0682	.00000	.00001
15	56	37	16.3999	.00000	.00001	15	20	64	103.0909	.00000	.00001
15	57	38	16.1667	.00000	.00001	15	21	63	98.2500	.00000	.00001
15	58	39	16.0333	.00000	.00001	15	22	62	93.5455	.00000	.00001
15	59	40	15.7803	.00000	.00001	15	23	61	88.9773	.00000	.00001
15	60	41	15.5667	.00000	.00001	15	24	60	84.5455	.00000	.00001
15	61	42	15.3889	.00000	.00001	15	25	59	80.2500	.00000	.00001
15	62	43	15.2444	.00000	.00001	15	26	58	76.0909	.00000	.00001
15	63	44	15.1333	.00000	.00001	15	27	57	72.0682	.00000	.00001
15	64	45	15.0499	.00000	.00001	15	28	56	68.1818	.00000	.00001
15	65	46	14.9899	.00000	.00001	15	29	55	64.5182	.00000	.00001
15	66	47	14.9485	.00000	.00001	15	30	54	61.0682	.00000	.00001
15	67	48	14.9222	.00000	.00001	15	31	53	57.8409	.00000	.00001
15	68	49	14.9074	.00000	.00001	15	32	52	54.8222	.00000	.00001
15	69	50	14.9022	.00000	.00001	15	33	51	51.9090	.00000	.00001
15	70	51	14.9067	.00000	.00001	15	34	50	49.1909	.00000	.00001
15	71	52	14.9200	.00000	.00001	15	35	49	46.6667	.00000	.00001
15	72	53	14.9411	.00000	.00001	15	36	48	44.3333	.00000	.00001
15	73	54	14.9689	.00000	.00001	15	37	47	42.1909	.00000	.00001
15	74	55	15.0022	.00000	.00001	15	38	46	40.2469	.00000	.00001
15	75	56	15.0400	.00000	.00001	15	39	45	38.4848	.00000	.00001
15	76	57	15.0822	.00000	.00001	15	40	44	36.8889	.00000	.00001
15	77	58	15.1289	.00000	.00001	15	41	43	35.4444	.00000	.00001
15	78	59	15.1799	.00000	.00001	15	42	42	34.1429	.00000	.00001
15	79	60	15.2350	.00000	.00001	15	43	41	32.9773	.00000	.00001
15	80	61	15.2944	.00000	.00001	15	44	40	31.9444	.00000	.00001
15	81	62	15.3583	.00000	.00001	15	45	39	31.0409	.00000	.00001
15	82	63	15.4267	.00000	.00001	15	46	38	30.2667	.00000	.00001
15	83	64	15.4999	.00000	.00001	15	47	37	29.6111	.00000	.00001
15	84	65	15.5778	.00000	.00001	15	48	36	29.0667	.00000	.00001
15	85	66	15.6606	.00000	.00001	15	49	35	28.6333	.00000	.00001
15	86	67	15.7483	.00000	.00001	15	50	34	28.3000	.00000	.00001
15	87	68	15.8400	.00000	.00001	15	51	33	28.0556	.00000	.00001
15	88	69	15.9356	.00000	.00001	15	52	32	27.9000	.00000	.00001
15	89	70	16.0350	.00000	.00001	15	53	31	27.8333	.00000	.00001
15	90	71	16.1383	.00000	.00001	15	54	30	27.8556	.00000	.00001
15	91	72	16.2456	.00000	.00001	15	55	29	27.9667	.00000	.00001
15	92	73	16.3569	.00000	.00001	15	56	28	28.1778	.00000	.00001
15	93	74	16.4722	.00000	.00001	15	57	27	28.4889	.00000	.00001
15	94	75	16.5915	.00000	.00001	15	58	26	28.9000	.00000	.00001
15	95	76	16.7148	.00000	.00001	15	59	25	29.4111	.00000	.00001
15	96	77	16.8421	.00000	.00001	15	60	24	30.0222	.00000	.00001
15	97	78	16.9734	.00000	.00001	15	61	23	30.7333	.00000	.00001
15	98	79	17.1087	.00000	.00001	15	62	22	31.5444	.00000	.00001
15	99	80	17.2480	.00000	.00001	15	63	21	32.4556	.00000	.00001

(1)

TABLE A

U	V	W	X2	P(A)	CUM P(A)	U	V	W	X2	P(A)	CUM P(A)
15	66	18	21.5455	.00000	.00004	16	31	52	53.5076	.00000	.00004
15	67	17	22.9773	.00000	.00004	16	32	51	50.2576	.00000	.00004
15	68	16	24.5455	.00000	.00004	16	33	50	47.1439	.00000	.00004
15	69	15	26.2500	.00000	.00004	16	34	49	44.1667	.00000	.00004
15	70	14	28.0909	.00000	.00004	16	35	48	41.3258	.00000	.00004
15	71	13	30.0682	.00000	.00004	16	36	47	38.6212	.00000	.00004
15	72	12	32.1818	.00000	.00004	16	37	46	36.0533	.00000	.00004
15	73	11	34.4318	.00000	.00004	16	38	45	33.6212	.00000	.00004
15	74	10	36.8182	.00000	.00004	16	39	44	31.3258	.00000	.00004
15	75	9	39.3409	.00000	.00004	16	40	43	29.1667	.00000	.00004
15	76	8	42.0000	.00000	.00004	16	41	42	27.1439	.00000	.00004
15	77	7	44.7955	.00000	.00004	16	42	41	25.2576	.00000	.00004
15	78	6	47.7273	.00000	.00004	16	43	40	23.5076	.00000	.00004
15	79	5	50.7955	.00000	.00004	16	44	39	21.8939	.00000	.00004
15	80	4	54.0000	.00000	.00004	16	45	38	20.4167	.00000	.00004
15	81	3	57.3409	.00000	.00004	16	46	37	19.0756	.00000	.00004
15	82	2	60.8182	.00000	.00004	16	47	36	17.8712	.00000	.00004
15	83	1	64.4318	.00000	.00004	16	48	35	16.8030	.00000	.00004
15	84	0	68.1818	.00000	.00004	16	49	34	15.8712	.00000	.00004
16	0	85	221.8939	.00000	.00004	16	50	33	15.0758	.00000	.00004
16	1	82	214.4167	.00000	.00004	16	51	32	14.4167	.00000	.00004
16	2	81	207.7500	.00000	.00004	16	52	31	13.8939	.00000	.00004
16	3	80	199.8712	.00000	.00004	16	53	30	13.5076	.00000	.00004
16	4	79	192.8500	.00000	.00004	16	54	29	13.2576	.00000	.00004
16	5	78	185.6712	.00000	.00004	16	55	28	13.1439	.00000	.00004
16	6	77	179.3758	.00000	.00004	16	56	27	13.1667	.00000	.00004
16	7	76	172.1667	.00000	.00004	16	57	26	13.2576	.00000	.00004
16	8	75	165.8939	.00000	.00004	16	58	25	13.6212	.00000	.00004
16	9	74	159.5476	.00000	.00004	16	59	24	14.0533	.00000	.00004
16	10	73	153.2576	.00000	.00004	16	60	23	14.6212	.00000	.00004
16	11	72	147.1439	.00000	.00004	16	61	22	15.3258	.00000	.00004
16	12	71	141.1667	.00000	.00004	16	62	21	16.1667	.00000	.00004
16	13	70	135.3258	.00000	.00004	16	63	20	17.1439	.00000	.00004
16	14	69	129.6212	.00000	.00004	16	64	19	18.2576	.00000	.00004
16	15	68	124.0533	.00000	.00004	16	65	18	19.5076	.00000	.00004
16	16	67	118.6212	.00000	.00004	16	66	17	20.8939	.00000	.00004
16	17	66	113.3258	.00000	.00004	16	67	16	22.4167	.00000	.00004
16	18	65	108.1667	.00000	.00004	16	68	15	24.0758	.00000	.00004
16	19	64	103.1439	.00000	.00004	16	69	14	25.8712	.00000	.00004
16	20	63	98.2576	.00000	.00004	16	70	13	27.8033	.00000	.00004
16	21	62	93.5476	.00000	.00004	16	71	12	29.8712	.00000	.00004
16	22	61	88.9773	.00000	.00004	16	72	11	32.0758	.00000	.00004
16	23	60	84.5455	.00000	.00004	16	73	10	34.4167	.00000	.00004
16	24	59	80.2500	.00000	.00004	16	74	9	36.8939	.00000	.00004
16	25	58	76.0909	.00000	.00004	16	75	8	39.5076	.00000	.00004
16	26	57	72.0682	.00000	.00004	16	76	7	42.2576	.00000	.00004
16	27	56	68.1818	.00000	.00004	16	77	6	45.1439	.00000	.00004
16	28	55	64.5182	.00000	.00004	16	78	5	48.1667	.00000	.00004
16	29	54	61.0682	.00000	.00004	16	79	4	51.3258	.00000	.00004
16	30	53	57.8409	.00000	.00004	16	80	3	54.6212	.00000	.00004

(2)

TABLE A

CHI SQUARE = P(1/3), P(4/9), P(2/27) N=99

U	V	W	X2	P(A)	CUM P(A)	U	V	W	X2	P(A)	CUM P(A)
15	81	2	58.4531	.00000	.00001	17	47	35	15.6439	.00000	.00011
15	82	1	51.6212	.00000	.00001	17	48	34	14.6667	.00000	.00011
15	83	0	45.3258	.00000	.00001	17	49	33	13.8258	.00000	.00012
17	0	82	415.3939	.00000	.00001	17	50	32	13.1212	.00000	.00013
17	1	81	408.076	.00000	.00001	17	51	31	12.5533	.00000	.00015
17	2	80	400.7576	.00000	.00001	17	52	30	12.1212	.00000	.00015
17	3	79	393.439	.00000	.00001	17	53	29	11.8258	.00000	.00017
17	4	78	386.0667	.00000	.00001	17	54	28	11.6667	.00001	.00017
17	5	77	379.4258	.00000	.00001	17	55	27	11.6439	.00001	.00019
17	6	76	373.1212	.00000	.00001	17	56	26	11.7576	.00001	.00020
17	7	75	366.9583	.00000	.00001	17	57	25	12.0076	.00001	.00022
17	8	74	360.4211	.00000	.00001	17	58	24	12.3939	.00001	.00023
17	9	73	353.8258	.00000	.00001	17	59	23	12.9167	.00001	.00024
17	10	72	346.9583	.00000	.00001	17	60	22	13.5758	.00001	.00024
17	11	71	340.1649	.00000	.00001	17	61	21	14.3712	.00000	.00025
17	12	70	333.7576	.00000	.00001	17	62	20	15.3000	.00000	.00026
17	13	69	326.9583	.00000	.00001	17	63	19	16.3712	.00000	.00026
17	14	68	320.3939	.00000	.00001	17	64	18	17.5758	.00000	.00025
17	15	67	314.0767	.00000	.00001	17	65	17	18.9167	.00000	.00026
17	16	66	307.9583	.00000	.00001	17	66	16	20.3939	.00000	.00026
17	17	65	302.1212	.00000	.00001	17	67	15	22.0076	.00000	.00026
17	18	64	296.3939	.00000	.00001	17	68	14	23.7576	.00000	.00026
17	19	63	290.9583	.00000	.00001	17	69	13	25.6439	.00000	.00026
17	20	62	285.7576	.00000	.00001	17	70	12	27.6667	.00000	.00026
17	21	61	280.7576	.00000	.00001	17	71	11	29.8258	.00000	.00026
17	22	60	275.9583	.00000	.00001	17	72	10	32.1212	.00000	.00026
17	23	59	271.3939	.00000	.00001	17	73	9	34.5533	.00000	.00026
17	24	58	266.9583	.00000	.00001	17	74	8	37.1212	.00000	.00026
17	25	57	262.7576	.00000	.00001	17	75	7	39.8258	.00000	.00026
17	26	56	258.7576	.00000	.00001	17	76	6	42.6667	.00000	.00026
17	27	55	254.9583	.00000	.00001	17	77	5	45.6439	.00000	.00026
17	28	54	251.3939	.00000	.00001	17	78	4	48.7576	.00000	.00026
17	29	53	247.9583	.00000	.00001	17	79	3	52.0076	.00000	.00026
17	30	52	244.7576	.00000	.00001	17	80	2	55.3939	.00000	.00026
17	31	51	241.7576	.00000	.00001	17	81	1	58.9167	.00000	.00026
17	32	50	238.9583	.00000	.00001	17	82	0	62.5758	.00000	.00026
17	33	49	236.3939	.00000	.00001	18	0	81	205.9583	.00000	.00026
17	34	48	234.0767	.00000	.00001	18	1	80	201.5000	.00000	.00026
17	35	47	231.9583	.00000	.00001	18	2	79	194.7576	.00000	.00026
17	36	46	230.0000	.00000	.00001	18	3	78	187.5682	.00000	.00026
17	37	45	228.2167	.00000	.00001	18	4	77	180.6688	.00000	.00026
17	38	44	226.5758	.00000	.00001	18	5	76	173.9318	.00000	.00026
17	39	43	225.0767	.00000	.00001	18	6	75	167.3182	.00000	.00026
17	40	42	223.7095	.00000	.00001	18	7	74	160.8409	.00000	.00026
17	41	41	222.4583	.00000	.00001	18	8	73	154.5000	.00000	.00026
17	42	40	221.3125	.00000	.00001	18	9	72	148.2222	.00000	.00026
17	43	39	220.2758	.00000	.00001	18	10	71	142.0000	.00000	.00026
17	44	38	219.3439	.00000	.00001	18	11	70	135.9258	.00000	.00026
17	45	37	218.5076	.00000	.00001	18	12	69	130.0000	.00000	.00026
17	46	36	217.7576	.00000	.00001	18	13	68	124.4444	.00000	.00026

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SCRIPPS INSTITUTION OF OCEANOGRAPHY LA JOLLA CALIF  
CLIMATE FORECAST VERIFICATION VIA MULTINOMIAL STOCHASTERS, (U)  
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F/G 4/2

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TABLE A

CHI SQUARE - P(41/3), P(4/9), P(2/2/9) N=99

U	V	W	X2	P(A)	CUM P(A)	U	V	W	X2	P(A)	CUM P(A)
19	32	48	39.9394	.00000	.00061	20	1	78	189.6894	.00000	.00136
19	33	47	37.0985	.00000	.00061	20	2	77	182.7121	.00000	.00136
19	34	46	34.3939	.00000	.00061	20	3	76	175.8712	.00000	.00136
19	35	45	31.8258	.00000	.00061	20	4	75	169.1667	.00000	.00136
19	36	44	29.3939	.00000	.00061	20	5	74	162.5985	.00000	.00136
19	37	43	27.1985	.00000	.00061	20	6	73	156.1667	.00000	.00136
19	38	42	24.9394	.00000	.00061	20	7	72	149.8712	.00000	.00136
19	39	41	22.9167	.00000	.00061	20	8	71	143.7121	.00000	.00136
19	40	40	21.0303	.00000	.00061	20	9	70	137.6894	.00000	.00136
19	41	39	19.2803	.00000	.00061	20	10	69	131.8030	.00000	.00136
19	42	38	17.6667	.00000	.00061	20	11	68	126.0530	.00000	.00136
19	43	37	16.1894	.00000	.00061	20	12	67	120.4394	.00000	.00136
19	44	36	14.8485	.00000	.00061	20	13	66	114.9621	.00000	.00136
19	45	35	13.6439	.00000	.00061	20	14	65	109.6212	.00000	.00136
19	46	34	12.5758	.00000	.00061	20	15	64	104.4167	.00000	.00136
19	47	33	11.6439	.00000	.00061	20	16	63	99.3485	.00000	.00136
19	48	32	10.8485	.00000	.00071	20	17	62	94.4167	.00000	.00136
19	49	31	10.1894	.00000	.00071	20	18	61	89.6212	.00000	.00136
19	50	30	9.6667	.00000	.00080	20	19	60	84.9621	.00000	.00136
19	51	29	9.2803	.00000	.00086	20	20	59	80.4394	.00000	.00136
19	52	28	8.9303	.00000	.00092	20	21	58	76.0530	.00000	.00136
19	53	27	8.6167	.00000	.00099	20	22	57	71.8030	.00000	.00136
19	54	26	8.3394	.00000	.00107	20	23	56	67.6894	.00000	.00136
19	55	25	8.0985	.00000	.00113	20	24	55	63.7121	.00000	.00136
19	56	24	7.8939	.00000	.00119	20	25	54	59.8712	.00000	.00136
19	57	23	7.7258	.00000	.00124	20	26	53	56.1667	.00000	.00136
19	58	22	7.5939	.00000	.00128	20	27	52	52.5985	.00000	.00136
19	59	21	7.4985	.00000	.00131	20	28	51	49.1667	.00000	.00136
19	60	20	7.4394	.00000	.00133	20	29	50	45.8712	.00000	.00136
19	61	19	7.4167	.00000	.00135	20	30	49	42.7121	.00000	.00136
19	62	18	7.4303	.00000	.00135	20	31	48	39.6894	.00000	.00136
19	63	17	7.4803	.00000	.00136	20	32	47	36.8030	.00000	.00136
19	64	16	7.5667	.00000	.00136	20	33	46	34.0530	.00000	.00136
19	65	15	7.6894	.00000	.00136	20	34	45	31.4394	.00000	.00136
19	66	14	7.8485	.00000	.00136	20	35	44	28.9621	.00000	.00136
19	67	13	8.0439	.00000	.00136	20	36	43	26.6212	.00000	.00136
19	68	12	8.2758	.00000	.00136	20	37	42	24.4167	.00000	.00136
19	69	11	8.5439	.00000	.00136	20	38	41	22.3485	.00000	.00136
19	70	10	8.8485	.00000	.00136	20	39	40	20.4167	.00000	.00136
19	71	9	9.1894	.00000	.00136	20	40	39	18.6212	.00000	.00136
19	72	8	9.5667	.00000	.00136	20	41	38	16.9621	.00000	.00136
19	73	7	9.9803	.00000	.00136	20	42	37	15.4394	.00000	.00136
19	74	6	10.4303	.00000	.00136	20	43	36	14.0530	.00000	.00136
19	75	5	10.9167	.00000	.00136	20	44	35	12.8030	.00000	.00141
19	76	4	11.4394	.00000	.00136	20	45	34	11.6894	.00000	.00143
19	77	3	11.9985	.00000	.00136	20	46	33	10.7121	.00000	.00147
19	78	2	12.5939	.00000	.00136	20	47	32	9.8712	.00000	.00153
19	79	1	13.2258	.00000	.00136	20	48	31	9.1667	.00000	.00161
19	80	0	13.8939	.00000	.00136	20	49	30	8.5985	.00000	.00170
20	0	79	195.0036	.00000	.00136	20	50	29	8.1667	.00000	.00182

(5)

TABLE A

U	V	W	X2	P(A)	CUM P(A)	U	V	W	X2	P(A)	CUM P(A)
20	51	28	7.8712	.00013	.00195	21	21	57	72.0682	.00000	.00287
20	52	27	7.7121	.00014	.00209	21	22	56	67.9091	.00000	.00287
20	53	26	7.6894	.00014	.00223	21	23	55	63.8864	.00000	.00287
20	54	25	7.6030	.00014	.00237	21	24	54	60.0000	.00000	.00287
20	55	24	7.5530	.00013	.00249	21	25	53	56.2500	.00000	.00287
20	56	23	7.4394	.00011	.00260	21	26	52	52.6364	.00000	.00287
20	57	22	7.3621	.00009	.00269	21	27	51	49.1591	.00000	.00287
20	58	21	7.3217	.00007	.00275	21	28	50	45.8182	.00000	.00287
20	59	20	7.2167	.00005	.00280	21	29	49	42.6136	.00000	.00287
20	60	19	7.1485	.00003	.00283	21	30	48	39.5455	.00000	.00287
20	61	18	7.1167	.00002	.00285	21	31	47	36.6136	.00000	.00287
20	62	17	7.0217	.00001	.00286	21	32	46	33.8182	.00000	.00287
20	63	16	6.9621	.00001	.00287	21	33	45	31.1591	.00000	.00287
20	64	15	6.9394	.00000	.00287	21	34	44	28.6364	.00000	.00287
20	65	14	6.8530	.00000	.00287	21	35	43	26.2500	.00000	.00287
20	66	13	6.8030	.00000	.00287	21	36	42	24.0000	.00000	.00287
20	67	12	6.6894	.00000	.00287	21	37	41	21.8864	.00000	.00287
20	68	11	6.6121	.00000	.00287	21	38	40	19.9091	.00000	.00287
20	69	10	6.5872	.00000	.00287	21	39	39	18.0682	.00000	.00287
20	70	9	6.5167	.00000	.00287	21	40	38	16.3636	.00000	.00287
20	71	8	6.4585	.00000	.00287	21	41	37	14.7955	.00000	.00287
20	72	7	6.4167	.00000	.00287	21	42	36	13.3636	.00000	.00287
20	73	6	6.3872	.00000	.00287	21	43	35	12.0682	.00000	.00287
20	74	5	6.3712	.00000	.00287	21	44	34	10.8909	.00000	.00287
20	75	4	6.3689	.00000	.00287	21	45	33	9.8485	.00000	.00287
20	76	3	6.3630	.00000	.00287	21	46	32	8.9000	.00000	.00287
20	77	2	6.3630	.00000	.00287	21	47	31	8.2500	.00000	.00287
20	78	1	6.3630	.00000	.00287	21	48	30	7.6364	.00000	.00287
20	79	0	6.3621	.00000	.00287	21	49	29	7.0591	.00000	.00287
21	0	78	190.9091	.00000	.00287	21	50	28	6.5182	.00000	.00287
21	1	77	183.8864	.00000	.00287	21	51	27	6.0136	.00000	.00287
21	2	76	177.0000	.00000	.00287	21	52	26	5.5455	.00000	.00287
21	3	75	170.2500	.00000	.00287	21	53	25	5.1136	.00000	.00287
21	4	74	163.6364	.00000	.00287	21	54	24	4.7182	.00000	.00287
21	5	73	157.1591	.00000	.00287	21	55	23	4.3591	.00000	.00287
21	6	72	150.8182	.00000	.00287	21	56	22	4.0364	.00000	.00287
21	7	71	144.6136	.00000	.00287	21	57	21	3.7500	.00000	.00287
21	8	70	138.5455	.00000	.00287	21	58	20	3.4885	.00000	.00287
21	9	69	132.6136	.00000	.00287	21	59	19	3.2500	.00000	.00287
21	10	68	126.8182	.00000	.00287	21	60	18	3.0364	.00000	.00287
21	11	67	121.1591	.00000	.00287	21	61	17	2.8485	.00000	.00287
21	12	66	115.6364	.00000	.00287	21	62	16	2.6864	.00000	.00287
21	13	65	110.2500	.00000	.00287	21	63	15	2.5455	.00000	.00287
21	14	64	105.0000	.00000	.00287	21	64	14	2.4136	.00000	.00287
21	15	63	99.8864	.00000	.00287	21	65	13	2.2982	.00000	.00287
21	16	62	94.9091	.00000	.00287	21	66	12	2.1991	.00000	.00287
21	17	61	90.0682	.00000	.00287	21	67	11	2.1164	.00000	.00287
21	18	60	85.3636	.00000	.00287	21	68	10	2.0400	.00000	.00287
21	19	59	80.7955	.00000	.00287	21	69	9	1.9700	.00000	.00287
21	20	58	76.3636	.00000	.00287	21	70	8	1.9055	.00000	.00287

(6)

TABLE A

CHI SQUARE - P(41/3), P(4/9), P(2/2/9) N=99

U	V	W	X2	P(A)	CUM P(A)	U	V	W	X2	P(A)	CUM P(A)
21	71	7	31.1591	.00000	.00571	22	42	35	11.4394	.00004	.00580
21	72	6	33.8182	.00000	.00571	22	43	34	11.2348	.00007	.00587
21	73	5	36.6136	.00000	.00571	22	44	33	9.1667	.00010	.00597
21	74	4	39.5455	.00000	.00571	22	45	32	8.2348	.00015	.00612
21	75	3	42.6136	.00000	.00571	22	46	31	7.4394	.00021	.00632
21	76	2	45.8182	.00000	.00571	22	47	30	6.7603	.00027	.00660
21	77	1	49.1591	.00000	.00571	22	48	29	6.2576	.00034	.00694
21	78	0	52.6634	.00000	.00571	22	49	28	5.8712	.00040	.00735
22	0	7	185.1667	.00000	.00571	22	50	27	5.6212	.00045	.00780
22	1	76	176.2348	.00000	.00571	22	51	26	5.5076	.00048	.00828
22	2	75	171.7394	.00000	.00571	22	52	25	5.5305	.00048	.00876
22	3	74	167.8182	.00000	.00571	22	53	24	5.6894	.00050	.00921
22	4	73	163.7676	.00000	.00571	22	54	23	5.9689	.00051	.00969
22	5	72	151.6712	.00000	.00571	22	55	22	6.3667	.00052	.00995
22	6	71	143.6212	.00000	.00571	22	56	21	6.9448	.00054	.01022
22	7	70	139.5076	.00000	.00571	22	57	20	7.6894	.00057	.01048
22	8	69	135.5303	.00000	.00571	22	58	19	8.5303	.00061	.01055
22	9	68	127.6894	.00000	.00571	22	59	18	9.5076	.00065	.01063
22	10	67	121.8894	.00000	.00571	22	60	17	10.6212	.00069	.01069
22	11	66	116.6167	.00000	.00571	22	61	16	11.8712	.00073	.01071
22	12	65	111.9848	.00000	.00571	22	62	15	13.2576	.00077	.01073
22	13	64	105.8894	.00000	.00571	22	63	14	14.7603	.00081	.01074
22	14	63	99.5455	.00000	.00571	22	64	13	16.3394	.00084	.01074
22	15	62	92.9776	.00000	.00571	22	65	12	18.0448	.00087	.01074
22	16	61	86.2112	.00000	.00571	22	66	11	20.0000	.00090	.01074
22	17	60	85.6712	.00000	.00571	22	67	10	22.2348	.00092	.01074
22	18	59	81.2576	.00000	.00571	22	68	9	24.7394	.00094	.01074
22	19	58	76.7803	.00000	.00571	22	69	8	26.8000	.00095	.01074
22	20	57	72.4394	.00000	.00571	22	70	7	29.2576	.00096	.01074
22	21	56	68.3394	.00000	.00571	22	71	6	31.8712	.00097	.01074
22	22	55	64.1367	.00000	.00571	22	72	5	34.6212	.00098	.01074
22	23	54	60.2348	.00000	.00571	22	73	4	37.5076	.00099	.01074
22	24	53	56.6394	.00000	.00571	22	74	3	40.5303	.00099	.01074
22	25	52	53.2803	.00000	.00571	22	75	2	43.6894	.00100	.01074
22	26	51	49.2576	.00000	.00571	22	76	1	46.9848	.00100	.01074
22	27	50	45.8712	.00000	.00571	22	77	0	50.4167	.00100	.01074
22	28	49	42.8212	.00000	.00571	23	0	76	179.5756	.00000	.01074
22	29	48	39.5076	.00000	.00571	23	1	75	172.7348	.00000	.01074
22	30	47	36.5303	.00000	.00571	23	2	74	166.0000	.00000	.01074
22	31	46	33.6894	.00000	.00571	23	3	73	159.6212	.00000	.01074
22	32	45	30.9848	.00000	.00571	23	4	72	153.9303	.00000	.01074
22	33	44	28.4167	.00000	.00571	23	5	71	146.7348	.00000	.01074
22	34	43	25.9848	.00000	.00571	23	6	70	140.8756	.00000	.01074
22	35	42	23.6894	.00000	.00571	23	7	69	135.3530	.00000	.01074
22	36	41	21.5303	.00000	.00571	23	8	68	129.6648	.00000	.01074
22	37	40	19.5076	.00000	.00571	23	9	67	124.7394	.00000	.01074
22	38	39	17.6211	.00000	.00572	23	10	66	119.3030	.00000	.01074
22	39	38	15.8712	.00001	.00572	23	11	65	114.2250	.00000	.01074
22	40	37	14.2576	.00001	.00574	23	12	64	108.4648	.00000	.01074
22	41	36	12.7803	.00002	.00576	23	13	63	103.2803	.00000	.01074

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TABLE A

CHE SQUARE = P.11(73), P.14(73), P.2(73) N=99

U	V	W	X2	PIA3	CUM	PIA3	U	V	W	X2	PIA3	CUM	PIA3
25 37 30	13.2995	.00001	.01916				25 11 63	105.0985	.00000	.03250			
25 38 37	13.5630	.00002	.01920				25 12 62	97.9394	.00000	.03250			
25 39 36	11.9316	.00009	.01924				25 13 61	92.9167	.00000	.03250			
25 40 35	10.5000	.00007	.01931				25 14 60	88.0303	.00000	.03250			
25 41 34	9.2295	.00012	.01943				25 15 59	83.7203	.00000	.03250			
25 42 33	8.0000	.00020	.01963				25 16 58	79.6667	.00000	.03250			
25 43 32	7.2227	.00033	.01993				25 17 57	75.1834	.00000	.03250			
25 44 31	6.1368	.00049	.02037				25 18 56	69.8885	.00000	.03250			
25 45 30	5.3868	.00069	.02097				25 19 55	65.0000	.00000	.03250			
25 46 29	4.7727	.00079	.02176				25 20 54	61.2758	.00000	.03250			
25 47 28	4.2900	.00097	.02273				25 21 53	57.8474	.00000	.03250			
25 48 27	3.9045	.00113	.02386				25 22 52	54.6645	.00000	.03250			
25 49 26	3.5500	.00126	.02511				25 23 51	51.6894	.00000	.03250			
25 50 25	3.2261	.00137	.02644				25 24 50	48.8667	.00000	.03250			
25 51 24	2.9301	.00147	.02786				25 25 49	46.2000	.00000	.03250			
25 52 23	2.6595	.00157	.02937				25 26 48	43.6833	.00000	.03250			
25 53 22	2.4100	.00166	.03097				25 27 47	41.3167	.00000	.03250			
25 54 21	2.1772	.00173	.03270				25 28 46	39.0000	.00000	.03250			
25 55 20	1.9586	.00179	.03454				25 29 45	36.8333	.00000	.03250			
25 56 19	1.7500	.00185	.03647				25 30 44	34.8000	.00000	.03250			
25 57 18	1.5500	.00190	.03850				25 31 43	32.8889	.00000	.03250			
25 58 17	1.3655	.00194	.04063				25 32 42	31.0833	.00000	.03250			
25 59 16	1.1945	.00197	.04286				25 33 41	29.3750	.00000	.03250			
25 60 15	1.0350	.00200	.04519				25 34 40	27.7500	.00000	.03250			
25 61 14	.8861	.00202	.04762				25 35 39	26.2000	.00000	.03250			
25 62 13	.7461	.00204	.05015				25 36 38	24.7167	.00000	.03250			
25 63 12	.6145	.00205	.05278				25 37 37	23.2917	.00000	.03250			
25 64 11	.4905	.00206	.05551				25 38 36	21.9167	.00000	.03250			
25 65 10	.3735	.00207	.05834				25 39 35	20.5833	.00000	.03250			
25 66 9	.2630	.00208	.06127				25 40 34	19.2833	.00000	.03250			
25 67 8	.1585	.00209	.06430				25 41 33	18.0167	.00000	.03250			
25 68 7	.0595	.00210	.06743				25 42 32	16.7833	.00000	.03250			
25 69 6	.0000	.00211	.07066				25 43 31	15.5833	.00000	.03250			
25 70 5	.0000	.00212	.07400				25 44 30	14.4167	.00000	.03250			
25 71 4	.0000	.00213	.07744				25 45 29	13.2833	.00000	.03250			
25 72 3	.0000	.00214	.08100				25 46 28	12.1833	.00000	.03250			
25 73 2	.0000	.00215	.08467				25 47 27	11.1167	.00000	.03250			
25 74 1	.0000	.00216	.08845				25 48 26	10.0833	.00000	.03250			
25 75 0	.0000	.00217	.09234				25 49 25	9.0833	.00000	.03250			
25 76 0	.0000	.00218	.09634				25 50 24	8.1167	.00000	.03250			
25 77 0	.0000	.00219	.10045				25 51 23	7.1833	.00000	.03250			
25 78 0	.0000	.00220	.10467				25 52 22	6.2833	.00000	.03250			
25 79 0	.0000	.00221	.10900				25 53 21	5.4167	.00000	.03250			
25 80 0	.0000	.00222	.11344				25 54 20	4.5833	.00000	.03250			
25 81 0	.0000	.00223	.11800				25 55 19	3.7833	.00000	.03250			
25 82 0	.0000	.00224	.12267				25 56 18	3.0167	.00000	.03250			
25 83 0	.0000	.00225	.12745				25 57 17	2.2833	.00000	.03250			
25 84 0	.0000	.00226	.13234				25 58 16	1.5833	.00000	.03250			
25 85 0	.0000	.00227	.13734				25 59 15	.9167	.00000	.03250			
25 86 0	.0000	.00228	.14245				25 60 14	.2833	.00000	.03250			
25 87 0	.0000	.00229	.14767				25 61 13	.0000	.00000	.03250			

(9)

TABLE A

U	V	W	X2	PIA3	CUM	PIA3	U	V	W	X2	PIA3	CUM	PIA3
26 35 37	13.1667	.00002	.02003				26 36 37	13.1667	.00005	.02009			
26 36 36	12.0000	.00001	.02004				26 37 36	11.5076	.00005	.02009			
26 35 33	11.5076	.00000	.02004				26 38 35	9.9849	.00007	.02010			
26 36 30	11.7576	.00000	.02004				26 39 34	8.5985	.00009	.02011			
26 35 27	11.9633	.00000	.02004				26 40 33	7.3465	.00010	.02012			
26 36 24	11.8889	.00000	.02004				26 41 32	6.2288	.00011	.02013			
26 37 23	12.1089	.00000	.02004				26 42 31	5.2376	.00012	.02014			
26 38 22	12.0000	.00000	.02004				26 43 30	4.3667	.00013	.02015			
26 39 21	12.2603	.00000	.02004				26 44 29	3.6121	.00014	.02016			
26 40 20	12.0000	.00000	.02004				26 45 28	3.0000	.00015	.02017			
26 41 19	11.7576	.00000	.02004				26 46 27	2.5221	.00016	.02018			
26 42 18	11.5076	.00000	.02004				26 47 26	2.1667	.00017	.02019			
26 43 17	11.2603	.00000	.02004				26 48 25	1.9167	.00018	.02020			
26 44 16	11.0000	.00000	.02004				26 49 24	1.6833	.00019	.02021			
26 45 15	10.7576	.00000	.02004				26 50 23	1.4667	.00020	.02022			
26 46 14	10.5076	.00000	.02004				26 51 22	1.2667	.00021	.02023			
26 47 13	10.2603	.00000	.02004				26 52 21	1.0833	.00022	.02024			
26 48 12	10.0000	.00000	.02004				26 53 20	.9167	.00023	.02025			
26 49 11	9.7576	.00000	.02004				26 54 19	.7667	.00024	.02026			
26 50 10	9.5076	.00000	.02004				26 55 18	.6333	.00025	.02027			
26 51 9	9.2603	.00000	.02004				26 56 17	.5167	.00026	.02028			
26 52 8	9.0000	.00000	.02004				26 57 16	.4167	.00027	.02029			
26 53 7	8.7576	.00000	.02004				26 58 15	.3333	.00028	.02030			
26 54 6	8.5076	.00000	.02004				26 59 14	.2667	.00029	.02031			
26 55 5	8.2603	.00000	.02004				26 60 13	.2167	.00030	.02032			
26 56 4	8.0000	.00000	.02004				26 61 12	.1778	.00031	.02033			
26 57 3	7.7576	.00000	.02004				26 62 11	.1489	.00032	.02034			
26 58 2	7.5076	.00000	.02004				26 63 10	.1250	.00033	.02035			
26 59 1	7.2603	.00000	.02004				26 64 9	.1056	.00034	.02036			
26 60 0	7.0000	.00000	.02004				26 65 8	.0889	.00035	.02037			
26 61 0	6.7576	.00000	.02004				26 66 7	.0739	.00036	.02038			
26 62 0	6.5076	.00000	.02004				26 67 6	.0600	.00037	.02039			
26 63 0	6.2603	.00000	.02004				26 68 5	.0481	.00038	.02040			
26 64 0	6.0000	.00000	.02004				26 69 4	.0381	.00039	.02041			
26 65 0	5.7576	.00000	.02004				26 70 3	.0290	.00040	.02042			
26 66 0	5.5076	.00000	.02004				26 71 2	.0208	.00041	.02043			
26 67 0	5.2603	.00000	.02004				26 72 1	.0135	.00042	.02044			
26 68 0	5.0000	.00000	.02004				26 73 0	.0071	.00043	.02045			
26 69 0	4.7576	.00000	.02004				26 74 0	.0000	.00044	.02046			
26 70 0	4.5076	.00000	.02004				26 75 0	.0000	.00045	.02047			
26 71 0	4.2603	.00000	.02004				26 76 0	.0000	.00046	.02048			
26 72 0	4.0000	.00000	.02004				26 77 0	.0000	.00047	.02049			
26 73 0	3.7576	.00000	.02004				26 78 0	.0000	.00048	.02050			
26 74 0	3.5076	.00000	.02004				26 79 0	.0000	.00049	.02051			
26 75 0	3.2603	.00000	.02004				26 80 0	.0000	.00050	.02052			
26 76 0	3.0000	.00000	.02004				26 81 0	.0000	.00051	.02053			
26 77 0	2.7576	.00000	.02004				26 82 0	.0000	.00052	.02054			
26 78 0	2.5076	.00000	.02004				26 83 0	.0000	.00053	.02055			
26 79 0	2.2603	.00000	.02004				26 84 0	.0000	.00054	.02056			
26 80 0	2.0000	.00000	.02004				26 85 0	.0000	.00055	.02057			
26 81 0	1.7576	.00000	.02004				26 86 0	.0000	.00056	.02058			
26 82 0	1.5076	.00000	.02004				26 87 0	.0000	.00057	.02059			
26 83 0	1.2603	.00000	.02004				26 88 0	.0000	.00058	.02060			
26 84 0	1.0000	.00000	.02004				26 89 0	.0000	.00059	.02061			
26 85 0	.7576	.00000	.02004				26 90 0	.0000	.00060	.02062			
26 86 0	.5076	.00000	.02004				26 91 0	.0000	.00061	.02063			
26 87 0	.2603	.00000	.02004				26 92 0	.0000	.00062	.02064			
26 88 0	.0000	.00000	.02004				26 93 0	.0000	.00063	.02065			
26 89 0	.0000	.00000	.02004				26 94 0	.0000	.00064	.02066			
26 90 0	.0000	.00000	.02004				26 95 0	.0000	.00065	.02067			
26 91 0	.0000	.00000	.02004				26 96 0	.0000	.00066	.02068			
26 92 0	.0000	.00000	.02004				26 97 0	.0000	.00067	.02069			
26 93 0	.0000	.00000	.02004				26 98 0	.0000	.00068	.02070			
26 94 0	.0000	.00000	.02004				26 99 0	.0000	.00069	.02071			
26 95 0	.0000	.00000	.02004				26 100 0	.0000	.00070	.02072			



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TABLE A

CHI SQUARE - P(41/31), P(14/9), P(2/2/9) N=99

U	V	W	X2	P(A)	CUM P(A)	U	V	W	X2	P(A)	CUM P(A)
29 67	3	28.9167	.00000	.22945		30 46	23	.4091	.00717	.26797	
29 68	2	31.7576	.00000	.22945		31 27	41	.00701	.27698		
29 69	1	34.7348	.00000	.22945		32 28	40	.00693	.28693		
29 70	0	37.8485	.00000	.22945		33 29	39	1.0227	.00551	.28693	
30 0	59	141.6818	.00000	.22945		34 30	38	1.5000	.00441	.29134	
30 1	58	138.4773	.00000	.22945		35 31	37	2.1136	.00329	.29662	
30 2	57	132.4891	.00000	.22945		36 32	36	2.8636	.00227	.29662	
30 3	56	126.4773	.00000	.22945		37 33	35	3.7900	.00166	.29839	
30 4	55	120.4818	.00000	.22945		38 34	34	4.7727	.00086	.29922	
30 5	54	115.0227	.00000	.22945		39 35	33	5.8318	.00087	.29969	
30 6	53	109.5484	.00000	.22945		40 36	32	7.2273	.00024	.29993	
30 7	52	104.1136	.00000	.22945		41 37	31	8.6591	.00011	.30003	
30 8	51	98.8636	.00000	.22945		42 38	30	10.2273	.00004	.30008	
30 9	50	93.7500	.00000	.22945		43 39	29	11.9318	.00002	.30010	
30 10	49	88.7727	.00000	.22945		44 40	28	13.7727	.00001	.30010	
30 11	48	83.9318	.00000	.22945		45 41	27	15.7500	.00000	.30010	
30 12	47	79.2273	.00000	.22945		46 42	26	17.8636	.00000	.30010	
30 13	46	74.6591	.00000	.22945		47 43	25	20.1136	.00000	.30010	
30 14	45	70.2273	.00000	.22945		48 44	24	22.5038	.00000	.30010	
30 15	44	65.9318	.00000	.22945		49 45	23	25.0227	.00000	.30010	
30 16	43	61.7727	.00000	.22945		50 46	22	27.6818	.00000	.30010	
30 17	42	57.7500	.00000	.22945		51 47	21	30.4773	.00000	.30010	
30 18	41	53.8636	.00000	.22945		52 48	20	33.4091	.00000	.30010	
30 19	40	50.1136	.00000	.22945		53 49	19	36.4773	.00000	.30010	
30 20	39	46.5000	.00000	.22945		54 50	18	40.0000	.00000	.30010	
30 21	38	43.0227	.00000	.22945		55 51	17	43.6818	.00000	.30010	
30 22	37	39.6818	.00000	.22945		56 52	16	47.5000	.00000	.30010	
30 23	36	36.4773	.00000	.22945		57 53	15	51.4621	.00000	.30010	
30 24	35	33.4091	.00000	.22945		58 54	14	55.5667	.00000	.30010	
30 25	34	30.4773	.00000	.22945		59 55	13	59.8227	.00000	.30010	
30 26	33	27.6818	.00000	.22945		60 56	12	64.2273	.00000	.30010	
30 27	32	25.0227	.00000	.22945		61 57	11	68.7727	.00000	.30010	
30 28	31	22.5000	.00000	.22945		62 58	10	73.4621	.00000	.30010	
30 29	30	20.1136	.00000	.22945		63 59	9	78.2909	.00000	.30010	
30 30	29	17.8636	.00000	.22945		64 60	8	83.2500	.00000	.30010	
30 31	28	15.7500	.00000	.22945		65 61	7	88.3318	.00000	.30010	
30 32	27	13.7727	.00000	.22945		66 62	6	93.5391	.00000	.30010	
30 33	26	11.9318	.00000	.22945		67 63	5	98.8621	.00000	.30010	
30 34	25	10.2273	.00000	.22945		68 64	4	104.3000	.00000	.30010	
30 35	24	8.6591	.00000	.22945		69 65	3	109.8485	.00000	.30010	
30 36	23	7.2273	.00000	.22945		70 66	2	115.5000	.00000	.30010	
30 37	22	5.9318	.00000	.22945		71 67	1	121.2500	.00000	.30010	
30 38	21	4.7727	.00000	.22945		72 68	0	127.1136	.00000	.30010	
30 39	20	3.7500	.00000	.22945		73 69	59	133.0818	.00000	.30010	
30 40	19	2.8636	.00000	.22945		74 70	58	139.0227	.00000	.30010	
30 41	18	2.1136	.00000	.22945		75 71	57	145.0227	.00000	.30010	
30 42	17	1.5000	.00000	.22945		76 72	56	151.0818	.00000	.30010	
30 43	16	1.0227	.00000	.22945		77 73	55	157.1818	.00000	.30010	
30 44	15	.6818	.00000	.22945		78 74	54	163.3227	.00000	.30010	
30 45	14	.4773	.00000	.22945		79 75	53	169.5000	.00000	.30010	

(13)

TABLE A

U	V	W	X2	P(A)	CUM P(A)	U	V	W	X2	P(A)	CUM P(A)
31 26	42	25.6667	.00000	.30010		32 27	41	23.0909	.00000	.30010	
31 27	41	23.0909	.00000	.30010		33 28	40	20.6667	.00000	.30010	
31 28	40	20.6667	.00000	.30010		34 29	39	18.3712	.00000	.30010	
31 29	39	18.3712	.00000	.30010		35 30	38	16.2121	.00001	.30011	
31 30	38	16.2121	.00001	.30011		36 31	37	14.1894	.00001	.30013	
31 31	37	14.1894	.00001	.30013		37 32	36	12.3030	.00003	.30016	
31 32	36	12.3030	.00003	.30016		38 33	35	10.5550	.00007	.30022	
31 33	35	10.5550	.00007	.30022		39 34	34	8.9394	.00014	.30036	
31 34	34	8.9394	.00014	.30036		40 35	33	7.4621	.00027	.30063	
31 35	33	7.4621	.00027	.30063		41 36	32	6.1216	.00049	.30112	
31 36	32	6.1216	.00049	.30112		42 37	31	4.9167	.00085	.30197	
31 37	31	4.9167	.00085	.30197		43 38	30	3.8485	.00139	.30336	
31 38	30	3.8485	.00139	.30336		44 39	29	2.9167	.00214	.30554	
31 39	29	2.9167	.00214	.30554		45 40	28	2.1412	.00310	.30860	
31 40	28	2.1412	.00310	.30860		46 41	27	1.4621	.00423	.31263	
31 41	27	1.4621	.00423	.31263		47 42	26	.9394	.00544	.31627	
31 42	26	.9394	.00544	.31627		48 43	25	.5530	.00678	.32085	
31 43	25	.5530	.00678	.32085		49 44	24	.3630	.00788	.32533	
31 44	24	.3630	.00788	.32533		50 45	23	.2141	.00798	.32982	
31 45	23	.2141	.00798	.32982		51 46	22	.1394	.00747	.33429	
31 46	22	.1394	.00747	.33429		52 47	21	.0867	.00653	.33879	
31 47	21	.0867	.00653	.33879		53 48	20	.0550	.00553	.34326	
31 48	20	.0550	.00553	.34326		54 49	19	.0340	.00453	.34762	
31 49	19	.0340	.00453	.34762		55 50	18	.0227	.00353	.35187	
31 50	18	.0227	.00353	.35187		56 51	17	.0167	.00253	.35603	
31 51	17	.0167	.00253	.35603		57 52	16	.0112	.00153	.36010	
31 52	16	.0112	.00153	.36010		58 53	15	.0073	.00103	.36410	
31 53	15	.0073	.00103	.36410		59 54	14	.0047	.00053	.36803	
31 54	14	.0047	.00053	.36803		60 55	13	.0030	.00033	.37187	
31 55	13	.0030	.00033	.37187		61 56	12	.0019	.00015	.37562	
31 56	12	.0019	.00015	.37562		62 57	11	.0012	.00006	.37929	
31 57	11	.0012	.00006	.37929		63 58	10	.0008	.00002	.38287	
31 58	10	.0008	.00002	.38287		64 59	9	.0005	.00001	.38636	
31 59	9	.0005	.00001	.38636		65 60	8	.0003	.00000	.38976	
31 60	8	.0003	.00000	.38976		66 61	7	.0002	.00000	.39307	
31 61	7	.0002	.00000	.39307		67 62	6	.0001	.00000	.39629	
31 62	6	.0001	.00000	.39629		68 63	5	.0000	.00000	.39942	
31 63	5	.0000	.00000	.39942		69 64	4	.0000	.00000	.40246	
31 64	4	.0000	.00000	.39942		70 65	3	.0000	.00000	.40541	
31 65	3	.0000	.00000	.39942		71 66	2	.0000	.00000	.40827	
31 66	2	.0000	.00000	.39942		72 67	1	.0000	.00000	.41104	
31 67	1	.0000	.00000	.39942		73 68	0	.0000	.00000	.41372	
31 68	0	.0000	.00000	.39942		74 69	59	.0000	.00000	.41631	
32 0	59	133.0818	.00000	.30010		75 70	58	.0000	.00000	.41881	
32 1	58	139.0227	.00000	.30010		76 71	57	.0000	.00000	.42122	
32 2	57	145.0227	.00000	.30010		77 72	56	.0000	.00000	.42354	
32 3	56	151.0818	.00000	.30010		78 73	55	.0000	.00000	.42577	
32 4	55	157.1818	.00000	.30010		79 74	54	.0000	.00000	.42791	
32 5	54	163.3227	.00000	.30010		80 75	53	.0000	.00000	.42996	
32 6	53	169.5000	.00000	.30010		81 76	52	.0000	.00000	.43191	
32 7	52	175.7000	.00000	.30010		82 77	51	.0000	.00000	.43377	
32 8	51	181.9227	.00000	.30010		83 78	50	.0000	.00000	.43554	
32 9	50	188.1667	.00000	.30010		84 79	49	.0000	.00000	.43722	
32 10	49	194.4318	.00000	.30010		85 80	48	.0000	.00000	.43881	
32 11	48	200.7167	.00000	.30010		86 81	47	.0000	.00000	.44031	
32 12	47	207.0227	.00000	.30010		87 82	46	.0000	.00000	.44172	
32 13	46	213.3485	.00000	.30010		88 83	45	.0000	.00000	.44304	
32 14	45	219.6936	.00000	.30010		89 84	44	.0000	.00000	.44427	
32 15	44	226.0582	.00000	.30010		90 85	43	.0000	.00000	.44541	
32 16	43	232.4423	.00000	.30010		91 86	42	.0000	.00000	.44646	



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TABLE A

CHE SQUARE - P.11/31 P.11/4/31 P.21/2/31 N=99

U	V	W	X2	PIA1	CUM PIA1	U	V	W	X2	PIA1	CUM PIA1
33	56	6	14.3536	.00001	.70581	36	41	22	.4773	.00688	.73578
33	57	7	13.1898	.00000	.70581	36	42	21	.4091	.00721	.74299
33	58	8	12.2121	.00000	.70581	36	43	20	.4773	.00734	.75003
33	59	9	11.3712	.00000	.70581	36	44	19	.6818	.00640	.75644
33	60	10	10.6667	.00000	.70581	36	45	18	1.0227	.00541	.76184
33	61	11	10.0985	.00000	.70581	36	46	17	1.5900	.00423	.76687
33	62	12	9.6667	.00000	.70581	36	47	16	2.1136	.00306	.77164
33	63	13	9.3712	.00000	.70581	36	48	15	2.6836	.00204	.77618
33	64	14	9.1212	.00000	.70581	36	49	14	3.3594	.00125	.77943
33	65	15	8.9118	.00000	.70581	36	50	13	4.1727	.00070	.78243
33	66	16	8.7312	.00000	.70581	36	51	12	5.0318	.00036	.78519
33	67	17	8.5768	.00000	.70581	36	52	11	5.9273	.00024	.78760
33	68	18	8.4436	.00000	.70581	36	53	10	6.8591	.00017	.78971
33	69	19	8.3288	.00000	.70581	36	54	9	7.9273	.00013	.79154
33	70	20	8.2292	.00000	.70581	36	55	8	9.1318	.00011	.79309
33	71	21	8.1427	.00000	.70581	36	56	7	10.4727	.00010	.79436
33	72	22	8.0652	.00000	.70581	36	57	6	11.9318	.00011	.79536
33	73	23	8.0000	.00000	.70581	36	58	5	13.5127	.00013	.79609
33	74	24	7.9452	.00000	.70581	36	59	4	15.2150	.00016	.79654
33	75	25	7.8992	.00000	.70581	36	60	3	17.0386	.00020	.79674
33	76	26	7.8600	.00000	.70581	36	61	2	18.9836	.00025	.79669
33	77	27	7.8272	.00000	.70581	36	62	1	21.1481	.00030	.79629
33	78	28	7.8000	.00000	.70581	36	63	0	23.5327	.00036	.79554
33	79	29	7.7772	.00000	.70581	36	64	0	26.1373	.00043	.79444
33	80	30	7.7592	.00000	.70581	36	65	0	28.9627	.00050	.79299
33	81	31	7.7452	.00000	.70581	36	66	0	32.0091	.00058	.79119
33	82	32	7.7342	.00000	.70581	36	67	0	35.2765	.00066	.78894
33	83	33	7.7252	.00000	.70581	36	68	0	38.7649	.00074	.78624
33	84	34	7.7182	.00000	.70581	36	69	0	42.4733	.00082	.78309
33	85	35	7.7132	.00000	.70581	36	70	0	46.4017	.00090	.77949
33	86	36	7.7092	.00000	.70581	36	71	0	50.5501	.00098	.77544
33	87	37	7.7062	.00000	.70581	36	72	0	54.9185	.00106	.77094
33	88	38	7.7042	.00000	.70581	36	73	0	59.5069	.00114	.76609
33	89	39	7.7032	.00000	.70581	36	74	0	64.3153	.00122	.76089
33	90	40	7.7032	.00000	.70581	36	75	0	69.3437	.00130	.75534
33	91	41	7.7042	.00000	.70581	36	76	0	74.5921	.00138	.74944
33	92	42	7.7062	.00000	.70581	36	77	0	79.9605	.00146	.74319
33	93	43	7.7092	.00000	.70581	36	78	0	85.4489	.00154	.73659
33	94	44	7.7132	.00000	.70581	36	79	0	91.0573	.00162	.72964
33	95	45	7.7182	.00000	.70581	36	80	0	96.7857	.00170	.72234
33	96	46	7.7242	.00000	.70581	36	81	0	102.6341	.00178	.71469
33	97	47	7.7312	.00000	.70581	36	82	0	108.6025	.00186	.70669
33	98	48	7.7392	.00000	.70581	36	83	0	114.6909	.00194	.69834
33	99	49	7.7482	.00000	.70581	36	84	0	120.8993	.00202	.68964
33	100	50	7.7582	.00000	.70581	36	85	0	127.2277	.00210	.68059

(17)

TABLE A

U	V	W	X2	PIA1	CUM PIA1	U	V	W	X2	PIA1	CUM PIA1
37	27	35	16.7368	.00001	.77376	38	14	47	49.6212	.00000	.83159
37	28	34	16.4485	.00001	.77377	38	15	46	46.0530	.00000	.83159
37	29	33	16.1898	.00001	.77381	38	16	45	42.6212	.00000	.83159
37	30	32	15.9667	.00007	.77388	38	17	44	39.3256	.00000	.83159
37	31	31	15.7772	.00015	.77403	38	18	43	36.1667	.00000	.83159
37	32	30	15.6227	.00029	.77433	38	19	42	33.1439	.00000	.83159
37	33	29	15.5000	.00055	.77466	38	20	41	30.2576	.00000	.83159
37	34	28	15.4039	.00091	.77517	38	21	40	27.5076	.00000	.83159
37	35	27	15.3321	.00136	.77583	38	22	39	24.8939	.00000	.83159
37	36	26	15.2821	.00190	.77664	38	23	38	22.4167	.00000	.83159
37	37	25	15.2500	.00250	.77760	38	24	37	20.0758	.00000	.83159
37	38	24	15.2333	.00316	.77873	38	25	36	17.8712	.00000	.83159
37	39	23	15.2300	.00388	.77999	38	26	35	15.8930	.00000	.83160
37	40	22	15.2389	.00466	.78137	38	27	34	14.1312	.00001	.83160
37	41	21	15.2589	.00550	.78284	38	28	33	12.5758	.00002	.83162
37	42	20	15.2889	.00640	.78439	38	29	32	11.2167	.00004	.83167
37	43	19	15.3289	.00736	.78601	38	30	31	10.0439	.00009	.83176
37	44	18	15.3789	.00838	.78769	38	31	30	9.0576	.00019	.83194
37	45	17	15.4389	.00946	.78944	38	32	29	8.2576	.00035	.83229
37	46	16	15.5089	.01060	.79124	38	33	28	7.6439	.00061	.83290
37	47	15	15.5889	.01180	.79309	38	34	27	7.1967	.00101	.83391
37	48	14	15.6789	.01306	.79494	38	35	26	6.9058	.00155	.83546
37	49	13	15.7789	.01438	.79679	38	36	25	6.7612	.00224	.83771
37	50	12	15.8889	.01576	.79854	38	37	24	6.7532	.00303	.84074
37	51	11	15.9989	.01720	.80019	38	38	23	6.8512	.00398	.84456
37	52	10	16.1089	.01870	.80164	38	39	22	7.0258	.00502	.84976
37	53	9	16.2189	.02026	.80289	38	40	21	7.2667	.00627	.85644
37	54	8	16.3289	.02188	.80394	38	41	20	7.5639	.00774	.86494
37	55	7	16.4389	.02356	.80479	38	42	19	7.9167	.00944	.87469
37	56	6	16.5489	.02530	.80534	38	43	18	8.3258	.01139	.88582
37	57	5	16.6589	.02710	.80559	38	44	17	8.7912	.01359	.89844
37	58	4	16.7689	.02896	.80554	38	45	16	9.3112	.01604	.91264
37	59	3	16.8789	.03088	.80529	38	46	15	9.8858	.01874	.92844
37	60	2	16.9889	.03286	.80474	38	47	14	10.5152	.02169	.94484
37	61	1	17.0989	.03490	.80389	38	48	13	11.1987	.02489	.96184
37	62	0	17.2089	.03700	.80274	38	49	12	11.9352	.02834	.97944
37	63	0	17.3189	.03916	.80129	38	50	11	12.7258	.03194	.99764
37	64	0	17.4289	.04138	.80004	38	51	10	13.5687	.03569	.10154
37	65	0	17.5389	.04366	.79899	38	52	9	14.4639	.03959	.10564
37	66	0	17.6489	.04600	.79814	38	53	8	15.4107	.04364	.10994
37	67	0	17.7589	.04840	.79749	38	54	7	16.4087	.04784	.11444
37	68	0	17.8689	.05086	.79694	38	55	6	17.4572	.05219	.11914
37	69	0	17.9789	.05338	.79669	38	56	5	18.5562	.05669	.12404
37	70	0	18.0889	.05596	.79649	38	57	4	19.7058	.06134	.12914
37	71	0	18.1989	.05860	.79634	38	58	3	20.9058	.06614	.13444
37	72	0	18.3089	.06130	.79679	38	59	2	22.1562	.07109	.13984
37	73	0	18.4189	.06406	.79709	38	60	1	23.4562	.07619	.14544
37	74	0	18.5289	.06688	.79724	38	61	0	24.8058	.08144	.15114
37	75	0	18.6389	.06976	.79739	38	62	0	26.2058	.08684	.15694
37	76	0	18.7489	.07270	.79754	38	63	0	27.6558	.09239	.16284
37	77	0	18.8589	.07570	.79769	38	64	0	29.1558	.09809	.16884
37	78	0	18.9689	.07876	.79784	38	65	0	30.7058	.10394	.17494
37	79	0	19.0789	.08188	.79799	38	66	0	32.3058	.10994	.18114
37	80	0	19.1889	.08506	.79814	38	67	0	33.9558	.11609	.18744
37	81	0	19.2989	.08830	.79829	38	68	0	35.6558	.12239	.19384
37	82	0	19.4089	.09160	.79844	38	69	0	37.4058	.12884	.19994
37	83	0	19.5189	.09496	.79859	38	70	0	39.2058	.13544	.20574
37	84	0	19.6289	.09838	.79874	38	71	0	41.0558	.14219	.21124
37	85	0	19.7389	.10186	.79889	38	72	0	42.9558	.14909	.21644
37	86	0	19.8489	.10540	.79904	38	73	0	44.9058	.15614	.22124
37	87	0	19.9589	.10898	.79919	38	74	0	46.9058	.16334	.22564
37	88	0	20.0689	.11260	.79934	38	75	0	48.9558	.17069	.22964
37	89	0	20.1789	.11626	.79949	38	76	0	51.0558	.17819	.23324
37	90	0	20.2889	.11996	.79964	38	77	0	53.2058	.18584	.23644
37	91	0	20.3989	.12370	.79979	38	78	0	55.4058	.19359	.23924
37	92	0	20.5089	.12746	.79994	38	79	0	57.6058	.20144	.24164
37	93	0	20.6189	.13122	.80009	38	80	0	59.8058	.20939	.24364
37	94	0	20.7289	.13500	.80024	38	81	0	62.0058	.21734	.24524
37	95	0	20.8389	.13876	.80039	38	82	0	64.2058	.22539	.24644
37	96	0	20.9489	.14252	.80054	38	83	0	66.4058	.23344	.24724
37	97	0	21.0589	.14628	.80069	38	84	0	68.6058	.24149	.24764
37	98	0	21.1689	.15004	.80084	38	85	0	70.8058	.24954	.24764
37	99	0	21.2789	.15380	.80099	38	86	0	73.0058	.25759	.24684
37	100	0	21.3889	.15756	.80114	38	87	0	75.2058	.26564	.24484

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TABLE A

CHE SQUARE - P(1/3), P(1/4), P(2/3) N=99

U	V	W	X2	P(A) CUM P(A)	U	V	W	X2	P(A) CUM P(A)
42 22 35	21.1364	.00000	.96327		43 14 42	41.6667	.00000	.97702	
42 23 34	19.1227	.00000	.96327		43 15 41	38.5530	.00000	.97702	
42 24 33	17.1455	.00000	.96327		43 16 40	35.5758	.00000	.97702	
42 25 32	15.2045	.00000	.96327		43 17 39	32.7348	.00000	.97702	
42 26 31	13.3080	.00000	.96327		43 18 38	30.0303	.00000	.97702	
42 27 30	11.4518	.00000	.96327		43 19 37	27.4621	.00000	.97702	
42 28 29	9.6349	.00000	.96327		43 20 36	25.0333	.00000	.97702	
42 29 28	7.8575	.00000	.96327		43 21 35	22.7348	.00000	.97702	
42 30 27	6.1200	.00000	.96327		43 22 34	20.5530	.00000	.97702	
42 31 26	4.4227	.00000	.96327		43 23 33	18.5530	.00000	.97702	
42 32 25	2.7664	.00000	.96327		43 24 32	16.6667	.00000	.97702	
42 33 24	1.1555	.00000	.96327		43 25 31	14.8889	.00000	.97702	
42 34 23	.4999	.00000	.96327		43 26 30	13.2000	.00000	.97702	
42 35 22	.1999	.00000	.96327		43 27 29	11.6250	.00000	.97702	
42 36 21	.0999	.00000	.96327		43 28 28	10.1429	.00000	.97702	
42 37 20	.0499	.00000	.96327		43 29 27	8.7500	.00000	.97702	
42 38 19	.0249	.00000	.96327		43 30 26	7.4074	.00000	.97702	
42 39 18	.0124	.00000	.96327		43 31 25	6.1667	.00000	.97702	
42 40 17	.0062	.00000	.96327		43 32 24	5.0000	.00000	.97702	
42 41 16	.0031	.00000	.96327		43 33 23	3.8889	.00000	.97702	
42 42 15	.0015	.00000	.96327		43 34 22	2.8571	.00000	.97702	
42 43 14	.0008	.00000	.96327		43 35 21	1.9231	.00000	.97702	
42 44 13	.0004	.00000	.96327		43 36 20	1.0000	.00000	.97702	
42 45 12	.0002	.00000	.96327		43 37 19	.5556	.00000	.97702	
42 46 11	.0001	.00000	.96327		43 38 18	.2778	.00000	.97702	
42 47 10	.0000	.00000	.96327		43 39 17	.1429	.00000	.97702	
42 48 9	.0000	.00000	.96327		43 40 16	.0769	.00000	.97702	
42 49 8	.0000	.00000	.96327		43 41 15	.0417	.00000	.97702	
42 50 7	.0000	.00000	.96327		43 42 14	.0238	.00000	.97702	
42 51 6	.0000	.00000	.96327		43 43 13	.0124	.00000	.97702	
42 52 5	.0000	.00000	.96327		43 44 12	.0062	.00000	.97702	
42 53 4	.0000	.00000	.96327		43 45 11	.0031	.00000	.97702	
42 54 3	.0000	.00000	.96327		43 46 10	.0015	.00000	.97702	
42 55 2	.0000	.00000	.96327		43 47 9	.0008	.00000	.97702	
42 56 1	.0000	.00000	.96327		43 48 8	.0004	.00000	.97702	
42 57 0	.0000	.00000	.96327		43 49 7	.0002	.00000	.97702	
42 58 0	.0000	.00000	.96327		43 50 6	.0001	.00000	.97702	
42 59 0	.0000	.00000	.96327		43 51 5	.0000	.00000	.97702	
42 60 0	.0000	.00000	.96327		43 52 4	.0000	.00000	.97702	
42 61 0	.0000	.00000	.96327		43 53 3	.0000	.00000	.97702	
42 62 0	.0000	.00000	.96327		43 54 2	.0000	.00000	.97702	
42 63 0	.0000	.00000	.96327		43 55 1	.0000	.00000	.97702	
42 64 0	.0000	.00000	.96327		43 56 0	.0000	.00000	.97702	
42 65 0	.0000	.00000	.96327		43 57 0	.0000	.00000	.97702	
42 66 0	.0000	.00000	.96327		43 58 0	.0000	.00000	.97702	
42 67 0	.0000	.00000	.96327		43 59 0	.0000	.00000	.97702	
42 68 0	.0000	.00000	.96327		43 60 0	.0000	.00000	.97702	
42 69 0	.0000	.00000	.96327		43 61 0	.0000	.00000	.97702	
42 70 0	.0000	.00000	.96327		43 62 0	.0000	.00000	.97702	
42 71 0	.0000	.00000	.96327		43 63 0	.0000	.00000	.97702	
42 72 0	.0000	.00000	.96327		43 64 0	.0000	.00000	.97702	
42 73 0	.0000	.00000	.96327		43 65 0	.0000	.00000	.97702	
42 74 0	.0000	.00000	.96327		43 66 0	.0000	.00000	.97702	
42 75 0	.0000	.00000	.96327		43 67 0	.0000	.00000	.97702	
42 76 0	.0000	.00000	.96327		43 68 0	.0000	.00000	.97702	
42 77 0	.0000	.00000	.96327		43 69 0	.0000	.00000	.97702	
42 78 0	.0000	.00000	.96327		43 70 0	.0000	.00000	.97702	
42 79 0	.0000	.00000	.96327		43 71 0	.0000	.00000	.97702	
42 80 0	.0000	.00000	.96327		43 72 0	.0000	.00000	.97702	
42 81 0	.0000	.00000	.96327		43 73 0	.0000	.00000	.97702	
42 82 0	.0000	.00000	.96327		43 74 0	.0000	.00000	.97702	
42 83 0	.0000	.00000	.96327		43 75 0	.0000	.00000	.97702	
42 84 0	.0000	.00000	.96327		43 76 0	.0000	.00000	.97702	
42 85 0	.0000	.00000	.96327		43 77 0	.0000	.00000	.97702	
42 86 0	.0000	.00000	.96327		43 78 0	.0000	.00000	.97702	
42 87 0	.0000	.00000	.96327		43 79 0	.0000	.00000	.97702	
42 88 0	.0000	.00000	.96327		43 80 0	.0000	.00000	.97702	
42 89 0	.0000	.00000	.96327		43 81 0	.0000	.00000	.97702	
42 90 0	.0000	.00000	.96327		43 82 0	.0000	.00000	.97702	
42 91 0	.0000	.00000	.96327		43 83 0	.0000	.00000	.97702	
42 92 0	.0000	.00000	.96327		43 84 0	.0000	.00000	.97702	
42 93 0	.0000	.00000	.96327		43 85 0	.0000	.00000	.97702	
42 94 0	.0000	.00000	.96327		43 86 0	.0000	.00000	.97702	
42 95 0	.0000	.00000	.96327		43 87 0	.0000	.00000	.97702	
42 96 0	.0000	.00000	.96327		43 88 0	.0000	.00000	.97702	
42 97 0	.0000	.00000	.96327		43 89 0	.0000	.00000	.97702	
42 98 0	.0000	.00000	.96327		43 90 0	.0000	.00000	.97702	
42 99 0	.0000	.00000	.96327		43 91 0	.0000	.00000	.97702	

(21)

TABLE A

U	V	W	X2	P(A) CUM P(A)	U	V	W	X2	P(A) CUM P(A)
44	7	48	65.5076	.00000 .98613	45	1	53	90.1682	.00000 .99193
44	8	47	61.5303	.00000 .98613	45	2	52	85.3636	.00000 .99193
44	9	46	57.6889	.00000 .98613	45	3	51	80.7955	.00000 .99193
44	10	45	53.9888	.00000 .98613	45	4	50	76.3636	.00000 .99193
44	11	44	50.4167	.00000 .98613	45	5	49	72.0682	.00000 .99193
44	12	43	46.9889	.00000 .98613	45	6	48	67.9091	.00000 .99193
44	13	42	43.6889	.00000 .98613	45	7	47	63.8889	.00000 .99193
44	14	41	40.5000	.00000 .98613	45	8	46	60.0000	.00000 .99193
44	15	40	37.5076	.00000 .98613	45	9	45	56.2500	.00000 .99193
44	16	39	34.6212	.00000 .98613	45	10	44	52.6364	.00000 .99193
44	17	38	31.8712	.00000 .98613	45	11	43	49.1591	.00000 .99193
44	18	37	29.2576	.00000 .98613	45	12	42	45.8182	.00000 .99193
44	19	36	26.7803	.00000 .98613	45	13	41	42.6136	.00000 .99193
44	20	35	24.4394	.00000 .98613	45	14	40	39.5455	.00000 .99193
44	21	34	22.2348	.00000 .98613	45	15	39	36.6136	.00000 .99193
44	22	33	20.1667	.00000 .98613	45	16	38	33.8182	.00000 .99193
44	23	32	18.2348	.00000 .98613	45	17	37	31.1591	.00000 .99193
44	24	31	16.4394	.00000 .98613	45	18	36	28.6364	.00000 .99193
44	25	30	14.7803	.00000 .98613	45	19	35	26.2500	.00000 .99193
44	26	29	13.2576	.00000 .98613	45	20	34	24.0000	.00000 .99193
44	27	28	11.8712	.00000 .98613	45	21	33	21.8889	.00000 .99193
44	28	27	10.6112	.00000 .98613	45	22	32	19.9091	.00000 .99193
44	29	26	9.5076	.00000 .98613	45	23	31	18.0682	.00000 .99193
44	30	25	8.5303	.00000 .98613	45	24	30	16.3636	.00000 .99193
44	31	24	7.6889	.00000 .98613	45	25	29	14.7955	.00000 .99193
44	32	23	6.9888	.00000 .98613	45	26	28	13.3636	.00000 .99193
44	33	22	6.4167	.00000 .98613	45	27	27	12.0682	.00000 .99193
44	34	21	5.9888	.00000 .98613	45	28	26	10.9091	.00000 .99193
44	35	20	5.6889	.00000 .98613	45	29	25	9.9889	.00000 .99193
44	36	19	5.5000	.00000 .98613	45	30	24	9.2000	.00000 .99193
44	37	18	5.0769	.00000 .98613	45	31	23	8.5556	.00000 .99193
44	38	17	4.6212	.00000 .98613	45	32	22	8.0000	.00000 .99193
44	39	16	4.2348	.00000 .98613	45	33	21	7.5364	.00000 .99193
44	40	15	3.9167	.00000 .98613	45	34	20	7.1591	.00000 .99193
44	41	14	3.6576	.00000 .98613	45	35	19	6.8455	.00000 .99193
44	42	13	3.4394	.00000 .98613	45	36	18	6.5818	.00000 .99193
44	43	12	3.2576	.00000 .98613	45	37	17	6.3636	.00000 .99193
44	44	11	3.1167	.00000 .98613	45	38	16	6.1818	.00000 .99193
44	45	10	2.9889	.00000 .98613	45	39	15	6.0227	.00000 .99193
44	46	9	2.8712	.00000 .98613	45	40	14	5.8818	.00000 .99193
44	47	8	2.7803	.00000 .98613	45	41	13	5.7500	.00000 .99193
44	48	7	2.7076	.00000 .98613	45	42	12	5.6250	.00000 .99193
44	49	6	2.6417	.00000 .98613	45	43	11	5.5000	.00000 .99193
44	50	5	2.5871	.00000 .98613	45	44	10	5.3818	.00000 .99193
44	51	4	2.5324	.00000 .98613	45	45	9	5.2636	.00000 .99193
44	52	3	2.4777	.00000 .98613	45	46	8	5.1455	.00000 .99193
44	53	2	2.4230	.00000 .98613	45	47	7	5.0273	.00000 .99193
44	54	1	2.3683	.00000 .98613	45	48	6	4.9091	.00000 .99193
44	55	0	2.3136	.00000 .98613	45	49	5	4.7909	.00000 .99193
44	56	0	2.2589	.00000 .98613	45	50	4	4.6727	.00000 .99193
44	57	0	2.2042	.00000 .98613					



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TABLE A

CHE SQUARE = P(1/3), P(1/3), P(2/3) N=99

U	V	W	X2	PIA3 CUM PIA3	U	V	W	X2	PIA3 CUM PIA3
49 37 13	12.5533	.00000	.99996		50 36 13	13.8939	.00001	.99994	
49 36 14	13.1212	.00000	.99997		50 37 12	14.4167	.00001	.99994	
49 39 11	13.8208	.00001	.99998		50 38 11	15.0758	.00001	.99995	
49 4 1	14.6667	.00001	.99999		50 39 10	15.8712	.00000	.99995	
49 41 8	15.6439	.00000	.99999		50 40 9	16.8070	.00000	.99996	
49 42 7	16.7576	.00000	.99999		50 41 8	17.8712	.00000	.99996	
49 43 6	18.1076	.00000	.99999		50 42 7	19.0758	.00000	.99996	
49 44 5	19.3939	.00000	.99999		50 43 6	20.4167	.00000	.99996	
49 45 4	20.9167	.00000	.99999		50 44 5	21.8939	.00000	.99996	
49 46 3	22.5758	.00000	.99999		50 45 4	23.5076	.00000	.99996	
49 47 2	24.3712	.00000	.99999		50 46 3	25.2576	.00000	.99996	
49 48 1	26.3533	.00000	.99999		50 47 2	27.1818	.00000	.99996	
49 49 0	28.5712	.00000	.99999		50 48 1	29.1667	.00000	.99996	
49 50 0	30.9375	.00000	.99999		50 49 0	31.3258	.00000	.99996	
50 1 49	33.6439	.00000	.99999		51 1 46	34.5855	.00000	.99996	
50 2 48	36.5876	.00000	.99999		51 1 47	36.2500	.00000	.99996	
50 3 47	39.2576	.00000	.99999		51 2 46	38.0979	.00000	.99996	
50 4 46	42.1439	.00000	.99999		51 3 45	40.0682	.00000	.99996	
50 5 45	45.1667	.00000	.99999		51 4 44	42.1818	.00000	.99996	
50 6 44	48.3258	.00000	.99999		51 5 43	44.4318	.00000	.99996	
50 7 43	51.6212	.00000	.99999		51 6 42	46.8182	.00000	.99996	
50 8 42	55.0533	.00000	.99999		51 7 41	49.3819	.00000	.99996	
50 9 41	58.6212	.00000	.99999		51 8 40	52.0000	.00000	.99996	
50 10 40	62.3258	.00000	.99999		51 9 39	54.7955	.00000	.99996	
50 11 39	66.1667	.00000	.99999		51 10 38	57.7273	.00000	.99996	
50 12 38	70.1439	.00000	.99999		51 11 37	60.7955	.00000	.99996	
50 13 37	74.2576	.00000	.99999		51 12 36	64.0000	.00000	.99996	
50 14 36	78.5076	.00000	.99999		51 13 35	67.3479	.00000	.99996	
50 15 35	82.8939	.00000	.99999		51 14 34	70.8182	.00000	.99996	
50 16 34	87.4167	.00000	.99999		51 15 33	74.4318	.00000	.99996	
50 17 33	92.0758	.00000	.99999		51 16 32	78.1818	.00000	.99996	
50 18 32	96.8712	.00000	.99999		51 17 31	82.0682	.00000	.99996	
50 19 31	101.8039	.00000	.99999		51 18 30	86.0979	.00000	.99996	
50 20 30	106.8712	.00000	.99999		51 19 29	90.2500	.00000	.99996	
50 21 29	112.0758	.00000	.99999		51 20 28	94.5455	.00000	.99996	
50 22 28	117.4167	.00000	.99999		51 21 27	98.9773	.00000	.99996	
50 23 27	122.8939	.00000	.99999		51 22 26	103.5455	.00000	.99996	
50 24 26	128.5076	.00000	.99999		51 23 25	108.2500	.00000	.99996	
50 25 25	134.2576	.00000	.99999		51 24 24	113.0979	.00000	.99996	
50 26 24	140.1439	.00000	.99999		51 25 23	118.0682	.00000	.99996	
50 27 23	146.1667	.00000	.99999		51 26 22	123.1818	.00000	.99996	
50 28 22	152.3258	.00000	.99999		51 27 21	128.4318	.00000	.99996	
50 29 21	158.6212	.00000	.99999		51 28 20	133.8182	.00000	.99996	
50 30 20	165.0533	.00000	.99999		51 29 19	139.3479	.00000	.99996	
50 31 19	171.6212	.00000	.99999		51 30 18	145.0000	.00000	.99996	
50 32 18	178.3258	.00000	.99999		51 31 17	150.7955	.00000	.99996	
50 33 17	185.1667	.00000	.99999		51 32 16	156.7273	.00000	.99996	
50 34 16	190.1439	.00000	.99999		51 33 15	162.7955	.00000	.99996	
50 35 15	195.2576	.00000	.99999		51 34 14	168.9773	.00000	.99996	
50 36 14	200.5076	.00000	.99999		51 35 13	175.2500	.00000	.99996	

(25)

TABLE A

U	V	W	X2	PIA3 CUM PIA3	U	V	W	X2	PIA3 CUM PIA3
51 36 12	15.8182	.00000	.99993		52 37 10	18.5985	.00000	.99997	
51 37 11	16.4318	.00000	.99993		52 38 9	19.4394	.00000	.99997	
51 38 10	17.1818	.00000	.99993		52 39 8	20.4167	.00000	.99997	
51 39 9	18.0682	.00000	.99993		52 40 7	21.5323	.00000	.99997	
51 40 8	19.0919	.00000	.99994		52 41 6	22.7603	.00000	.99997	
51 41 7	20.2500	.00000	.99994		52 42 5	24.1667	.00000	.99997	
51 42 6	21.4555	.00000	.99994		52 43 4	25.6894	.00000	.99997	
51 43 5	22.9773	.00000	.99994		52 44 3	27.3485	.00000	.99997	
51 44 4	24.5455	.00000	.99994		52 45 2	29.1439	.00000	.99997	
51 45 3	26.2500	.00000	.99994		52 46 1	31.0758	.00000	.99997	
51 46 2	28.0909	.00000	.99994		52 47 0	33.1439	.00000	.99997	
51 47 1	30.0682	.00000	.99994		53 0 46	35.3533	.00000	.99997	
51 48 0	32.1818	.00000	.99994		53 1 45	37.6894	.00000	.99997	
52 0 47	34.5455	.00000	.99994		53 2 44	40.1212	.00000	.99997	
52 1 46	37.0682	.00000	.99994		53 3 43	42.7371	.00000	.99997	
52 2 45	39.7576	.00000	.99994		53 4 42	45.5467	.00000	.99997	
52 3 44	42.5467	.00000	.99994		53 5 41	48.5485	.00000	.99997	
52 4 43	45.4394	.00000	.99994		53 6 40	51.6667	.00000	.99997	
52 5 42	48.4394	.00000	.99994		53 7 39	54.9712	.00000	.99997	
52 6 41	51.5323	.00000	.99994		53 8 38	58.4721	.00000	.99997	
52 7 40	54.7203	.00000	.99994		53 9 37	62.1694	.00000	.99997	
52 8 39	58.0533	.00000	.99994		53 10 36	66.0682	.00000	.99997	
52 9 38	61.5467	.00000	.99994		53 11 35	70.2500	.00000	.99997	
52 10 37	65.1894	.00000	.99994		53 12 34	74.6394	.00000	.99997	
52 11 36	68.9894	.00000	.99994		53 13 33	79.2621	.00000	.99997	
52 12 35	72.9394	.00000	.99994		53 14 32	84.1212	.00000	.99997	
52 13 34	77.0394	.00000	.99994		53 15 31	89.1667	.00000	.99997	
52 14 33	81.2894	.00000	.99994		53 16 30	94.4394	.00000	.99997	
52 15 32	85.6894	.00000	.99994		53 17 29	99.9371	.00000	.99997	
52 16 31	90.2394	.00000	.99994		53 18 28	105.6621	.00000	.99997	
52 17 30	94.9394	.00000	.99994		53 19 27	111.6212	.00000	.99997	
52 18 29	99.7894	.00000	.99994		53 20 26	117.8394	.00000	.99997	
52 19 28	104.7894	.00000	.99994		53 21 25	124.3333	.00000	.99997	
52 20 27	109.9394	.00000	.99994		53 22 24	131.0621	.00000	.99997	
52 21 26	115.2394	.00000	.99994		53 23 23	138.0621	.00000	.99997	
52 22 25	120.6894	.00000	.99994		53 24 22	145.2621	.00000	.99997	
52 23 24	126.2894	.00000	.99994		53 25 21	152.1667	.00000	.99997	
52 24 23	132.0394	.00000	.99994		53 26 20	159.2621	.00000	.99997	
52 25 22	137.9394	.00000	.99994		53 27 19	166.5621	.00000	.99997	
52 26 21	143.9894	.00000	.99994		53 28 18	174.0621	.00000	.99997	
52 27 20	149.9894	.00000	.99994		53 29 17	181.7621	.00000	.99997	
52 28 19	156.1394	.00000	.99994		53 30 16	189.1621	.00000	.99997	
52 29 18	162.4394	.00000	.99994		53 31 15	196.7621	.00000	.99997	
52 30 17	168.8894	.00000	.99994		53 32 14	204.5621	.00000	.99997	
52 31 16	175.4894	.00000	.99994		53 33 13	212.5621	.00000	.99997	
52 32 15	182.2394	.00000	.99994		53 34 12	220.7621	.00000	.99997	
52 33 14	189.1394	.00000	.99994		53 35 11	229.1621	.00000	.99997	
52 34 13	196.1894	.00000	.99994		53 36 10	237.7621	.00000	.99997	
52 35 12	203.3894	.00000	.99994		53 37 9	246.5621	.00000	.99997	
52 36 11	210.7394	.00000	.99994		53 38 8	255.5621	.00000	.99997	

(26)

TABLE A

CHE SQUARE = P(1/3), P(1/3), P(2/3) N=99

U	V	W	X2	PIA3 CUM PIA3
53 39	7	22.9167	.00000	.99999
53 40	6	24.1212	.00000	.99999
53 41	5	25.4621	.00000	.99999
53 42	4	26.9394	.00000	.99999
53 43	3	28.5533	.00000	.99999
53 44	2	30.3033	.00000	.99999
53 45	1	32.1894	.00000	.99999
53 46	0	34.2121	.00000	.99999
54 0	49	36.4691	.00000	.99999
54 1	48	38.8664	.00000	.99999
54 2	47	41.4000	.00000	.99999
54 3	46	44.0750	.00000	.99999
54 4	45	46.8939	.00000	.99999
54 5	44	49.8591	.00000	.99999
54 6	43	52.9712	.00000	.99999
54 7	42	56.2312	.00000	.99999
54 8	41	59.6439	.00000	.99999
54 9	40	63.2091	.00000	.99999
54 10	39	66.9276	.00000	.99999
54 11	38	70.7991	.00000	.99999
54 12	37	74.8236	.00000	.99999
54 13	36	79.0000	.00000	.99999
54 14	35	83.3276	.00000	.99999
54 15	34	87.8064	.00000	.99999
54 16	33	92.4376	.00000	.99999
54 17	32	97.2212	.00000	.99999
54 18	31	102.1582	.00000	.99999
54 19	30	107.2500	.00000	.99999
54 20	29	112.5000	.00000	.99999
54 21	28	117.9167	.00000	.99999
54 22	27	123.5000	.00000	.99999
54 23	26	129.2500	.00000	.99999
54 24	25	135.1667	.00000	.99999
54 25	24	141.2500	.00000	.99999
54 26	23	147.5000	.00000	.99999
54 27	22	153.9167	.00000	.99999
54 28	21	160.5000	.00000	.99999
54 29	20	167.2500	.00000	.99999
54 30	19	174.1667	.00000	.99999
54 31	18	181.2500	.00000	.99999
54 32	17	188.5000	.00000	.99999
54 33	16	195.9167	.00000	.99999
54 34	15	203.5000	.00000	.99999
54 35	14	211.2500	.00000	.99999
54 36	13	219.1667	.00000	.99999
54 37	12	227.2500	.00000	.99999
54 38	11	235.5000	.00000	.99999
54 39	10	243.9167	.00000	.99999
54 40	9	252.5000	.00000	.99999
54 41	8	261.2500	.00000	.99999
54 42	7	270.1667	.00000	.99999
54 43	6	279.2500	.00000	.99999
54 44	5	288.5000	.00000	.99999
54 45	4	297.9167	.00000	.99999
54 46	3	307.5000	.00000	.99999
54 47	2	317.2500	.00000	.99999
54 48	1	327.1667	.00000	.99999
54 49	0	337.2500	.00000	.99999



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TABLE B

CHE SQUARE = P(1/3), P(1/4/3), P(2/4/3) N=99

U	V	W	X2	P(A) CUM P(B)	U	V	W	X2	P(A) CUM P(B)
33 44 22	6.0000	0.0000	0.0000	29 45 25	0.9167	0.0059	0.36214		
33 44 22	0.5530	0.0059	0.01733	35 46 18	0.9394	0.0059	0.36778		
32 45 22	0.5530	0.0060	0.01593	31 42 26	0.9394	0.0059	0.37322		
33 45 21	0.6882	0.0061	0.01483	32 47 18	0.9621	0.0059	0.37866		
33 45 21	0.6882	0.0061	0.01483	32 41 26	0.9621	0.0059	0.38410		
33 45 21	0.7558	0.0064	0.01408	36 45 18	1.0227	0.0059	0.38954		
32 46 23	0.7558	0.0064	0.01408	36 39 24	1.0227	0.0059	0.39498		
33 42 23	1.0667	0.0070	0.01787	34 49 20	1.0227	0.0059	0.40042		
32 46 21	1.0667	0.0083	0.01710	30 43 26	1.0227	0.0059	0.40586		
33 43 21	1.0894	0.0085	0.01555	33 48 18	1.0909	0.0059	0.41130		
31 45 23	1.0894	0.0079	0.02112	33 40 26	1.0909	0.0059	0.41674		
33 44 24	0.2121	0.0076	0.01999	37 39 23	1.0909	0.0059	0.42218		
31 46 22	0.2121	0.0076	0.01999	29 49 21	1.0909	0.0059	0.42762		
33 45 24	0.2368	0.0079	0.01593	35 39 23	1.0909	0.0059	0.43306		
32 43 24	0.2368	0.0079	0.01593	31 49 19	1.0909	0.0059	0.43850		
33 46 24	0.2727	0.0078	0.01350	38 41 20	1.1439	0.0059	0.44394		
33 46 24	0.2727	0.0078	0.01350	28 47 24	1.1439	0.0059	0.44938		
33 46 24	0.3038	0.0078	0.01672	38 40 21	1.1667	0.0059	0.45482		
31 44 24	0.3038	0.0078	0.01672	28 48 23	1.1667	0.0059	0.46026		
33 47 23	0.3718	0.0078	0.01672	37 44 18	1.2121	0.0059	0.46570		
31 47 21	0.3718	0.0078	0.01672	29 44 26	1.2121	0.0059	0.47114		
33 42 21	0.4091	0.0078	0.01740	38 42 19	1.2576	0.0059	0.47658		
33 46 23	0.4091	0.0078	0.01740	28 46 25	1.2576	0.0059	0.48202		
33 41 24	0.4671	0.0088	0.01920	38 39 22	1.3258	0.0059	0.48746		
32 47 24	0.4671	0.0088	0.01920	36 39 26	1.3258	0.0059	0.49290		
33 43 24	0.4773	0.0074	0.02440	32 49 18	1.3258	0.0059	0.49834		
33 47 22	0.4773	0.0088	0.02118	28 49 22	1.3258	0.0059	0.50378		
33 47 22	0.4773	0.0071	0.02189	35 47 17	1.4621	0.0059	0.50922		
33 45 24	0.4773	0.0087	0.02256	31 41 27	1.4621	0.0059	0.51466		
33 46 19	0.5303	0.0085	0.02229	37 38 24	1.4848	0.0059	0.52010		
32 42 19	0.5303	0.0085	0.02229	29 50 20	1.4848	0.0059	0.52554		
33 42 19	0.5530	0.0083	0.02475	36 46 17	1.5000	0.0059	0.53098		
31 43 19	0.5530	0.0088	0.02533	36 38 25	1.5000	0.0059	0.53642		
33 47 19	0.6136	0.0088	0.02533	30 50 19	1.5000	0.0059	0.54186		
33 41 25	0.6136	0.0085	0.02533	31 42 27	1.5000	0.0059	0.54730		
33 40 24	0.6667	0.0083	0.02718	38 43 18	1.5376	0.0059	0.55274		
31 46 20	0.6667	0.0085	0.02718	48 45 26	1.5376	0.0059	0.55818		
33 44 23	0.6818	0.0083	0.02815	34 48 17	1.5376	0.0059	0.56362		
33 40 21	0.6818	0.0083	0.02815	32 40 27	1.5376	0.0059	0.56906		
33 44 19	0.6818	0.0083	0.02815	38 38 23	1.6212	0.0059	0.57450		
33 40 25	0.6818	0.0083	0.02815	28 50 21	1.6212	0.0059	0.57994		
37 41 21	0.7398	0.0081	0.03930	39 47 24	1.6364	0.0059	0.58538		
27 47 23	0.7398	0.0081	0.03930	27 48 24	1.6364	0.0059	0.59082		
37 42 20	0.7576	0.0081	0.03235	37 45 17	1.6429	0.0059	0.59626		
29 46 24	0.7576	0.0087	0.03751	29 42 27	1.6429	0.0059	0.60170		
36 44 25	0.8038	0.0073	0.03524	35 39 26	1.6567	0.0059	0.60714		
32 48 19	0.8038	0.0083	0.03524	31 50 16	1.6567	0.0059	0.61258		
37 48 22	0.8485	0.0072	0.03588	39 38 21	1.7045	0.0059	0.61802		
29 48 22	0.8485	0.0088	0.03588	27 49 23	1.7045	0.0059	0.62346		
37 43 19	0.9167	0.0071	0.03566	39 41 19	1.7045	0.0059	0.62890		

(1)

TABLE B

U	V	W	X2	P(A) CUM P(B)	U	V	W	X2	P(A) CUM P(B)
33 39 27	1.7045	0.00389	0.59058	26 46 27	2.7121	0.00221	0.73742		
27 47 25	1.7045	0.00389	0.59058	39 38 24	2.7273	0.00216	0.73938		
38 44 17	1.8939	0.00350	0.68145	27 52 20	2.7273	0.00240	0.74134		
39 42 18	1.8939	0.00350	0.68145	39 44 16	2.7273	0.00229	0.74437		
39 38 22	1.9091	0.00339	0.61178	27 44 26	2.7273	0.00227	0.74634		
27 50 22	1.9091	0.00344	0.61523	34 37 28	2.7835	0.00216	0.74830		
27 46 26	1.9091	0.00332	0.61854	32 51 18	2.7835	0.00228	0.75026		
34 38 27	1.9091	0.00318	0.62172	36 48 15	2.8636	0.00204	0.75222		
32 50 17	1.9091	0.00342	0.62514	36 36 27	2.8636	0.00227	0.75418		
37 37 25	2.0076	0.00307	0.62822	30 52 17	2.8636	0.00227	0.75614		
29 51 19	2.0076	0.00344	0.63167	36 40 29	2.8636	0.00221	0.75810		
38 37 24	2.0030	0.00303	0.63470	41 39 19	2.9167	0.00220	0.76006		
28 51 20	2.0030	0.00339	0.63805	35 49 15	2.9167	0.00230	0.76202		
36 47 16	2.1136	0.00306	0.64111	31 39 29	2.9167	0.00216	0.76398		
36 37 26	2.1136	0.00291	0.64402	29 44 29	2.9167	0.00215	0.76594		
38 51 18	2.1136	0.00329	0.64731	41 38 20	2.9399	0.00215	0.76790		
30 41 28	2.1136	0.00312	0.65043	25 50 25	2.9399	0.00215	0.76986		
39 48 16	2.1136	0.00306	0.65349	40 35 23	2.9846	0.00194	0.77182		
31 40 26	2.1136	0.00310	0.65659	26 52 21	2.9846	0.00206	0.77378		
37 46 16	2.2121	0.00294	0.65951	41 43 18	3.0303	0.00209	0.77574		
29 42 20	2.2121	0.00298	0.66248	25 49 25	3.0303	0.00183	0.77770		
40 39 20	2.2348	0.00361	0.66549	36 46 15	3.0303	0.00184	0.77966		
26 49 24	2.2348	0.00281	0.66830	34 50 15	3.0303	0.00177	0.78162		
34 49 16	2.2348	0.00292	0.67121	32 38 29	3.0303	0.00195	0.78358		
32 39 28	2.2348	0.00291	0.67412	28 42 29	3.0303	0.00198	0.78554		
37 37 23	2.2500	0.00280	0.67692	41 37 21	3.0985	0.00194	0.78750		
27 51 21	2.2500	0.00297	0.67989	25 51 23	3.0985	0.00183	0.78946		
39 43 17	2.2500	0.00296	0.68285	41 43 16	3.1639	0.00189	0.79142		
27 45 27	2.2500	0.00281	0.68588	26 45 28	3.1639	0.00182	0.79338		
40 40 19	2.2576	0.00301	0.68889	35 36 28	3.2121	0.00171	0.79534		
26 48 25	2.2576	0.00275	0.69184	31 52 16	3.2121	0.00167	0.79730		
26 50 23	2.2576	0.00275	0.69479	41 41 17	3.2803	0.00167	0.79926		
35 37 27	2.3712	0.00259	0.69752	34 55 26	3.2803	0.00163	0.80122		
31 51 17	2.3712	0.00286	0.70238	28 43 18	3.3258	0.00164	0.80318		
40 41 18	2.4167	0.00279	0.70517	39 45 15	3.3258	0.00163	0.80514		
38 45 16	2.4167	0.00285	0.70782	27 43 29	3.3258	0.00172	0.80710		
28 43 28	2.4167	0.00268	0.71049	39 35 25	3.3258	0.00155	0.80906		
26 47 26	2.4167	0.00254	0.71303	35 31 15	3.3258	0.00166	0.81102		
35 50 16	2.4545	0.00264	0.71568	33 37 29	3.3258	0.00169	0.81298		
33 38 28	2.4545	0.00257	0.71825	27 53 19	3.3258	0.00161	0.81494		
40 37 22	2.4598	0.00241	0.72086	41 36 22	3.3939	0.00163	0.81690		
26 51 22	2.4598	0.00243	0.72339	25 52 22	3.3939	0.00162	0.81886		
38 36 25	2.4621	0.00229	0.72594	37 35 27	3.4621	0.00166	0.82082		
28 52 19	2.4621	0.00257	0.72791	29 53 17	3.4621	0.00172	0.82278		
37 36 26	2.4667	0.00219	0.73039	41 35 28	3.5076	0.00180	0.82474		
29 52 18	2.4667	0.00203	0.73282	26 52 21	3.5076	0.00165	0.82670		
40 42 17	2.7121	0.00339	0.73501	41 42 16	3.6667	0.00149	0.82866		

(2)

TABLE B

CHE SQUARE = P(1/3), P(1/4/3), P(2/4/3) N=99

U	V	W	X2	P(A) CUM P(B)	U	V	W	X2	P(A) CUM P(B)
25	46	26	3.6667	0.0137 0.83174	29	54	16	4.3939	0.00108 0.89242
42	38	19	3.6818	0.0135 0.83328	42	45	14	4.4167	0.00092 0.89353
29	54	25	3.6818	0.0130 0.83587	28	43	38	4.4167	0.00103 0.89464
49	44	15	3.7121	0.0137 0.83595	43	37	19	4.5530	0.00102 0.89575
34	36	29	3.7121	0.0138 0.83733	23	51	25	4.5530	0.00081 0.89686
32	52	15	3.7121	0.0140 0.83873	43	38	18	4.5758	0.00102 0.89797
26	48	28	3.7121	0.0141 0.84014	23	52	26	4.5758	0.00083 0.89908
42	39	18	3.7507	0.0149 0.84163	43	36	20	4.6667	0.00094 0.89959
42	37	20	3.7507	0.0148 0.84309	23	52	24	4.6667	0.00078 0.89973
36	35	28	3.7507	0.0128 0.84437	43	39	17	4.7348	0.00094 0.90084
33	53	16	3.7507	0.0146 0.84563	23	49	27	4.7348	0.00074 0.90195
29			3.7507	0.0147 0.84704	23	49	13	4.7348	0.00071 0.90211
28	49	48	3.7507	0.0125 0.84835	29	39	31	4.7348	0.00095 0.90307
31	49	14	3.7507	0.0128 0.84966	42	42	15	4.7727	0.00085 0.90392
33	35	30	3.7537	0.0147 0.85187	42	34	23	4.7727	0.00079 0.90472
37	48	14	3.7576	0.0124 0.85231	24	54	21	4.7727	0.00083 0.90555
29	40	36	3.7576	0.0147 0.85379	24	46	29	4.7727	0.00079 0.90634
41	35	23	3.8258	0.0128 0.85506	36	50	13	4.7727	0.00070 0.90704
43	53	21	3.8258	0.0138 0.85641	36	34	29	4.7727	0.00077 0.90781
33	56	14	3.8485	0.0126 0.85761	31	54	15	4.7727	0.00086 0.90868
31	38	30	3.8485	0.0139 0.85900	31	38	31	4.7727	0.00079 0.90960
48	48	34	3.8714	0.0118 0.86037	34	35	30	4.7803	0.00083 0.91043
41	31	36	3.9142	0.0138 0.86174	32	48	14	4.7803	0.00079 0.91126
42	40	17	3.9545	0.0134 0.86291	28	48	13	4.8030	0.00064 0.91191
42	36	41	3.9545	0.0128 0.86419	28	40	31	4.8030	0.00092 0.91283
29	52	43	3.9545	0.0137 0.86536	41	44	14	4.8485	0.00075 0.91358
24	48	27	3.9545	0.0113 0.86650	25	44	30	4.8485	0.00081 0.91439
33	51	14	4.0530	0.0110 0.86759	42	38	21	4.9167	0.00081 0.91520
32	37	36	4.0530	0.0124 0.86883	35	51	13	4.9167	0.00086 0.91586
39	46	14	4.2939	0.0130 0.86989	31	37	31	4.9167	0.00085 0.91671
39	34	26	4.2939	0.0133 0.87094	23	53	23	4.9167	0.00071 0.91742
27	54	18	4.3969	0.0127 0.87227	40	33	26	4.9621	0.00067 0.91809
27	42	37	4.3969	0.0123 0.87345	26	55	18	4.9621	0.00063 0.91892
48	48	55	4.4167	0.0109 0.87462	39	73	13	4.9621	0.00075 0.91975
38	34	47	4.4667	0.0117 0.87587	39	33	27	4.9773	0.00066 0.92021
28	54	17	4.4667	0.0143 0.87670	27	55	17	4.9773	0.00083 0.92105
25	54	19	4.4667	0.0121 0.87791	27	41	31	4.9773	0.00084 0.92188
41	43	15	4.4894	0.0111 0.87902	43	40	16	5.0303	0.00068 0.92266
33	35	29	4.4894	0.0106 0.88008	23	48	28	5.0303	0.00065 0.92333
31	53	15	4.4894	0.0113 0.88123	41	33	25	5.0985	0.00063 0.92396
23	45	29	4.4894	0.0109 0.88229	25	55	19	5.0985	0.00076 0.92474
42	41	16	4.4955	0.0112 0.88341	38	33	28	5.1439	0.00061 0.92533
42	35	42	4.4955	0.0105 0.88446	28	55	18	5.1439	0.00076 0.92609
28	52	17	4.4955	0.0106 0.88548	34	52	15	5.1667	0.00069 0.92688
24	34	28	4.4955	0.0105 0.88650	52	36	17	5.1667	0.00070 0.92769
33	52	12	4.5636	0.0096 0.88740	40	13	15	5.2576	0.00056 0.92776
33	36	36	4.5636	0.0104 0.88845	26	42	31	5.2576	0.00072 0.92870
41	34	24	4.5939	0.0093 0.88938	43	34	22	5.3030	0.00062 0.92934
25	54	20	4.5939	0.0105 0.89062	35	34	30	5.3030	0.00062 0.92994
37	34	28	4.5939	0.0091 0.89134	31	54	14	5.3030	0.00063 0.93054

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TABLE B

CHE SQUARE - P(1/3), P(1/4), P(2/3) N=99

U	V	W	X2	P(1/3) CUM P(1/3)	U	V	W	X2	P(1/3) CUM P(1/3)
29 37 33	7.1591	.00033	.97178	25 58 16	8.0303	.00019	.98199		
45 33 21	7.1591	.00027	.97206	42 46 11	8.0455	.00011	.98211		
37 49 11	7.1591	.00017	.97222	24 42 37	8.0455	.00020	.98230		
27 39 33	7.1591	.00032	.97255	42 30 27	8.0455	.00013	.98243		
21 55 23	7.1591	.00021	.97276	24 58 17	8.0455	.00019	.98262		
45 39 15	7.1591	.00029	.97305	46 33 20	8.0530	.00019	.98281		
39 31 29	7.1591	.00021	.97327	20 55 24	8.0530	.00013	.98293		
27 57 15	7.1591	.00028	.97355	46 38 15	8.1667	.00018	.98312		
21 49 29	7.1591	.00024	.97376	40 38 29	8.1667	.00012	.98324		
35 52 11	7.2273	.00016	.97392	26 58 15	8.1667	.00018	.98342		
35 52 11	7.2273	.00023	.97416	27 58 29	8.1667	.00011	.98353		
30 56 13	7.2273	.00024	.97439	43 30 26	8.2121	.00012	.98366		
33 36 33	7.2273	.00031	.97470	23 58 18	8.2121	.00017	.98382		
45 31 25	7.2803	.00021	.97491	44 43 12	8.2348	.00013	.98395		
25 57 19	7.2803	.00025	.97516	22 45 32	8.2348	.00015	.98410		
33 33 34	7.3258	.00025	.97541	45 31 23	8.2500	.00014	.98424		
32 55 12	7.3258	.00019	.97560	21 57 21	8.2500	.00014	.98438		
42 48 11	7.3485	.00015	.97576	45 41 13	8.2500	.00015	.98453		
26 40 33	7.3485	.00029	.97605	33 55 11	8.2500	.00011	.98463		
41 42 13	7.4394	.00021	.97626	33 33 33	8.2500	.00017	.98480		
22 46 31	7.4394	.00021	.97647	21 47 31	8.2500	.00013	.98493		
35 53 11	7.4621	.00015	.97662	38 51 10	8.4167	.00018	.98531		
31 35 33	7.4621	.00027	.97689	28 37 34	8.4167	.00019	.98520		
38 31 30	7.5076	.00019	.97707	46 32 31	8.4394	.00015	.98535		
27 57 14	7.5076	.00023	.97730	29 56 13	8.4394	.00011	.98545		
45 44 12	7.5758	.00017	.97747	39 30 30	8.4545	.00017	.98553		
43 44 12	7.5758	.00022	.97769	39 30 30	8.4545	.00011	.98564		
43 40 14	7.6364	.00022	.97791	27 58 14	8.4545	.00015	.98578		
45 32 22	7.6364	.00020	.97811	27 36 34	8.4545	.00019	.98597		
21 56 22	7.6364	.00018	.97829	37 52 16	8.4848	.00007	.98604		
21 48 30	7.6364	.00017	.97846	29 36 34	8.4848	.00018	.98623		
41 47 11	7.6439	.00014	.97859	40 30 25	8.5303	.00011	.98634		
23 41 33	7.6439	.00025	.97884	22 58 19	8.5303	.00013	.98647		
46 35 18	7.6894	.00024	.97908	45 45 11	8.5530	.00009	.98656		
44 31 24	7.6894	.00018	.97926	25 43 33	8.5530	.00015	.98671		
22 57 20	7.6894	.00021	.97945	46 39 14	8.5945	.00014	.98685		
20 53 26	7.6894	.00018	.97959	40 49 10	8.5945	.00007	.98692		
46 34 17	7.7121	.00024	.97983	26 39 34	8.5945	.00017	.98709		
22 52 27	7.7121	.00014	.97997	20 49 30	8.5945	.00010	.98719		
45 34 19	7.8030	.00022	.98019	36 53 19	8.6541	.00007	.98725		
34 54 11	7.8030	.00034	.98032	36 31 32	8.6591	.00012	.98737		
32 34 33	7.8030	.00022	.98054	30 57 12	8.6591	.00011	.98748		
43 54 25	7.8030	.00014	.98068	30 35 34	8.6591	.00016	.98764		
45 37 16	7.8712	.00022	.98090	54 32 33	8.8030	.00012	.98777		
45 31 28	7.8712	.00013	.98103	32 56 11	8.8030	.00008	.98785		
35 32 34	7.9394	.00018	.98120	41 48 10	8.8485	.00006	.98791		
31 56 12	7.9394	.00015	.98135	25 40 34	8.8485	.00015	.98806		
37 31 31	8.0076	.00015	.98150	38 30 31	8.8939	.00009	.98815		
29 57 13	8.0076	.00017	.98167	28 58 13	8.8939	.00011	.98826		
41 30 28	8.0383	.00013	.98185	47 35 17	8.9167	.00014	.98840		

(5)

TABLE B

U	V	W	X2	P(1/3) CUM P(1/3)	U	V	W	X2	P(1/3) CUM P(1/3)
19 53 27	8.9167	.00007	.98847	19 57 23	9.8258	.00005	.99262		
47 34 18	8.9394	.00013	.98860	46 41 12	9.8712	.00006	.99268		
19 54 26	8.9394	.00007	.98867	20 47 32	9.8712	.00006	.99274		
35 54 16	8.9394	.00006	.98873	45 43 11	9.8864	.00005	.99279		
31 34 34	8.9394	.00014	.98887	45 29 25	9.8864	.00006	.99284		
46 31 22	8.9621	.00011	.98898	39 51 9	9.8864	.00003	.99287		
20 57 22	8.9621	.00009	.98907	39 29 31	9.8864	.00005	.99293		
45 30 24	9.0008	.00009	.98916	27 59 13	9.8864	.00007	.99308		
21 58 20	9.0008	.00010	.98926	27 37 35	9.8864	.00010	.99310		
45 42 12	9.0008	.00009	.98935	21 59 19	9.8864	.00007	.99316		
21 46 32	9.0008	.00010	.98944	21 45 33	9.8864	.00007	.99323		
47 36 16	9.0303	.00013	.98957	38 52 9	9.8939	.00003	.99346		
19 52 28	9.0303	.00017	.98964	28 36 35	9.8939	.00010	.99336		
47 33 19	9.0985	.00012	.98976	40 50 9	9.8948	.00003	.99339		
19 55 25	9.0985	.00007	.98983	26 38 35	9.8948	.00010	.99348		
46 40 13	9.1667	.00010	.98993	37 53 9	10.0076	.00003	.99351		
20 48 31	9.1667	.00008	.99000	29 35 35	10.0076	.00009	.99360		
44 44 11	9.1667	.00007	.99007	47 39 13	10.1894	.00006	.99367		
22 44 33	9.1667	.00010	.99017	42 49 9	10.1894	.00003	.99369		
42 47 10	9.2045	.00005	.99023	25 39 35	10.1894	.00009	.99376		
42 29 28	9.2045	.00007	.99030	19 49 31	10.1894	.00004	.99382		
24 59 16	9.2045	.00011	.99040	48 34 17	10.2273	.00007	.99389		
24 41 34	9.2045	.00012	.99046	36 30 33	10.2273	.00005	.99395		
47 37 15	9.2803	.00011	.99064	30 58 11	10.2273	.00004	.99399		
45 29 27	9.2803	.00007	.99071	18 54 27	10.2273	.00003	.99403		
23 59 17	9.2803	.00010	.99081	30 54 9	10.2273	.00003	.99405		
19 51 29	9.2803	.00006	.99087	31 34 35	10.2273	.00003	.99413		
41 29 29	9.2803	.00007	.99094	44 45 10	10.2348	.00008	.99417		
25 59 15	9.2803	.00010	.99104	22 43 34	10.2348	.00007	.99423		
34 55 10	9.3258	.00005	.99109	48 35 16	10.2955	.00007	.99431		
32 33 34	9.3258	.00011	.99120	48 33 18	10.2955	.00007	.99436		
47 32 20	9.3939	.00010	.99130	18 55 26	10.2955	.00003	.99441		
19 56 24	9.3939	.00006	.99136	18 53 28	10.2955	.00003	.99444		
35 31 33	9.4621	.00008	.99144	47 30 22	10.2955	.00005	.99449		
31 57 11	9.4621	.00006	.99151	19 58 22	10.3939	.00004	.99453		
37 30 32	9.4848	.00007	.99158	46 29 24	10.4167	.00004	.99458		
29 58 12	9.4848	.00007	.99165	26 59 20	10.4167	.00005	.99463		
44 29 26	9.5076	.00006	.99172	38 29 32	10.4167	.00004	.99467		
40 29 26	9.5076	.00006	.99176	34 31 34	10.4167	.00006	.99473		
26 59 14	9.5076	.00009	.99187	32 57 10	10.4167	.00003	.99476		
22 59 16	9.5076	.00009	.99196	28 59 12	10.4167	.00005	.99481		
46 30 23	9.6212	.00007	.99203	43 28 48	10.4848	.00004	.99484		
20 58 21	9.6212	.00007	.99209	23 60 16	10.4848	.00006	.99490		
47 38 14	9.6667	.00009	.99218	48 36 15	10.5000	.00006	.99497		
43 46 10	9.6667	.00004	.99223	48 32 19	10.5000	.00006	.99503		
23 42 34	9.6667	.00009	.99232	18 56 25	10.5000	.00003	.99506		
19 50 30	9.6667	.00005	.99237	18 52 29	10.5000	.00003	.99516		
33 56 10	9.8182	.00004	.99241	42 48 8	10.5000	.00002	.99511		
33 32 34	9.8182	.00008	.99249	42 28 29	10.5000	.00004	.99514		
47 31 21	9.8258	.00007	.99257	24 60 13	10.5000	.00006	.99520		

(6)

TABLE B

CHE SQUARE - P(1/3), P(1/4), P(2/3) N=99

U	V	W	X2	P(1/3)	CUM P(1/3)	U	V	W	X2	P(1/3)	CUM P(1/3)
24	46	35	10.5000	.00007	.99527	47	41	11	11.6439	.00002	.99697
35	55	9	10.5530	.00002	.99530	19	47	33	11.6439	.00002	.99699
31	33	35	10.5530	.00007	.99536	17	55	27	11.6439	.00001	.99700
41	28	27	10.6212	.00003	.99540	49	34	16	11.6667	.00004	.99704
22	60	17	10.6212	.00005	.99545	41	50	8	11.6667	.00001	.99705
41	28	30	10.6667	.00003	.99548	37	54	8	11.6667	.00001	.99706
23	60	14	10.6667	.00003	.99553	29	34	36	11.6667	.00005	.99711
46	42	14	10.7121	.00004	.99557	25	36	34	11.6667	.00003	.99715
40	46	33	10.7121	.00004	.99561	17	54	28	11.6667	.00001	.99717
45	31	20	10.8409	.00005	.99566	46	45	10	11.6894	.00002	.99718
19	51	24	10.8409	.00003	.99569	26	45	34	11.6894	.00003	.99721
45	37	14	10.8409	.00005	.99574	49	32	18	11.7576	.00004	.99725
19	51	30	10.8409	.00003	.99576	17	56	26	11.7576	.00001	.99726
47	49	12	10.8409	.00004	.99580	43	27	29	11.8258	.00002	.99728
19	48	32	10.8409	.00003	.99584	23	61	15	11.8258	.00003	.99731
45	28	26	10.9491	.00003	.99587	49	35	15	11.8258	.00004	.99734
21	60	18	10.9491	.00004	.99591	17	53	29	11.8258	.00001	.99736
35	44	10	10.9491	.00003	.99593	48	27	28	11.8712	.00002	.99738
21	44	34	10.9491	.00004	.99598	22	61	16	11.8712	.00003	.99741
43	47	9	10.9167	.00004	.99600	42	27	30	11.9318	.00002	.99742
23	41	35	10.9167	.00006	.99605	24	61	14	11.9318	.00003	.99745
42	38	31	10.9446	.00003	.99608	48	39	12	11.9318	.00003	.99747
19	52	24	10.9446	.00003	.99612	22	62	22	11.9318	.00002	.99750
32	32	35	10.9446	.00005	.99615	42	49	1	11.9318	.00003	.99753
25	60	13	10.9446	.00004	.99619	36	55	8	11.9318	.00001	.99755
47	29	23	11.0485	.00003	.99623	36	29	34	11.9318	.00002	.99757
37	29	33	11.0485	.00003	.99626	30	59	10	11.9318	.00002	.99758
29	59	11	11.0485	.00003	.99629	30	33	36	11.9718	.00004	.99764
19	59	21	11.0485	.00003	.99632	24	39	36	11.9318	.00004	.99763
33	39	34	11.1212	.00002	.99636	18	59	22	11.9318	.00002	.99765
31	58	10	11.1212	.00002	.99638	18	49	32	11.9318	.00002	.99767
45	30	21	11.1212	.00004	.99642	47	28	24	11.9318	.00002	.99769
18	58	43	11.3182	.00002	.99644	19	60	20	11.9394	.00002	.99771
48	36	5	11.3182	.00002	.99648	5	5	19	12.0776	.00002	.99773
18	58	31	11.3182	.00002	.99650	17	57	25	12.0776	.00003	.99775
45	28	29	11.3485	.00003	.99653	45	45	9	12.0682	.00001	.99776
46	40	19	11.3485	.00003	.99656	45	27	27	12.3682	.00002	.99778
41	46	9	11.4394	.00001	.99657	21	61	17	12.0682	.00002	.99780
22	42	39	11.4394	.00004	.99661	21	43	35	12.0682	.00003	.99783
39	52	8	11.4545	.00001	.99662	38	28	33	12.0758	.00002	.99785
39	28	32	11.4545	.00002	.99665	28	60	11	12.0758	.00002	.99787
27	60	12	11.4545	.00003	.99668	49	36	14	12.1212	.00003	.99790
27	36	36	11.4545	.00005	.99673	17	57	30	12.1212	.00001	.99791
40	51	8	11.5076	.00001	.99674	34	38	35	12.1667	.00003	.99794
38	53	8	11.5076	.00001	.99675	32	58	9	12.1667	.00001	.99795
25	37	36	11.5076	.00005	.99678	41	27	13	12.1667	.00002	.99796
35	57	9	11.5227	.00001	.99681	43	48	8	12.3038	.00001	.99799
33	31	35	11.5227	.00004	.99683	35	58	8	12.3038	.00001	.99800
49	33	17	11.6439	.00004	.99694	31	32	36	12.3038	.00003	.99803



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TABLE B

CHI SQUARE - P(14/31), P(14/29), P(14/27) N=99

U	V	W	X2	PIA3 CUM FIB3	U	V	W	X2	PIA3 CUM FIB3		
23 43 36	14.0534	.00001	.99991	15 54 30	15.0000	.00000	.99997	16 49 34	15.8712	.00000	.99966
23 57 7	14.1899	.00007	.99993	24 34 6	15.0000	.00000	.99997	44 49 6	15.8712	.00000	.99966
31 31 37	14.1899	.00001	.99999	27 34 36	15.0000	.00001	.99999	22 39 36	15.8712	.00001	.99967
44 48 7	14.2576	.00000	.99999	41 52 6	15.0383	.00007	.99992	34 28 37	16.3758	.00000	.99967
22 40 37	14.2576	.00001	.99999	25 36 34	15.0333	.00001	.99999	32 40 7	16.3758	.00000	.99967
44 26 33	14.3465	.00001	.99999	28 36 31	15.0758	.00001	.99999	50 26 23	16.1467	.00000	.99967
26 42 13	14.3465	.00001	.99999	16 50 33	15.0758	.00002	.99999	16 42 21	16.1467	.00000	.99968
49 27 25	14.3712	.00001	.99999	36 55 4	15.1434	.00007	.99992	47 45 7	16.1467	.00000	.99968
17 41 21	14.3712	.00000	.99999	28 35 38	15.1434	.00001	.99999	19 43 37	16.1467	.00000	.99968
33 37 12	14.4167	.00001	.99999	42 51 6	15.2045	.00000	.99999	35 38 6	16.2121	.00000	.99968
15 51 32	14.4167	.00000	.99999	42 25 32	15.2045	.00000	.99999	31 38 38	16.2121	.00001	.99969
44 24 9	14.5909	.00000	.99999	24 43 12	15.2045	.00001	.99999	40 25 34	16.2348	.00000	.99969
49 26 25	14.5909	.00000	.99999	24 37 38	15.2045	.00001	.99999	26 43 10	16.2348	.00000	.99969
18 42 19	14.5909	.00001	.99999	47 25 27	15.2203	.00000	.99999	45 48 6	16.3636	.00000	.99969
18 46 35	14.5909	.00001	.99999	19 43 17	15.2203	.00000	.99999	45 24 30	16.3636	.00000	.99969
52 28 21	14.6212	.00001	.99999	49 26 24	15.3030	.00000	.99999	21 44 14	16.3636	.00000	.99970
15 48 23	14.6212	.00000	.99999	17 42 20	15.3030	.00000	.99999	21 40 38	16.3636	.00001	.99970
49 40 12	14.6667	.00001	.99999	50 27 22	15.3258	.00000	.99999	49 25 25	16.3712	.00000	.99972
17 48 34	14.6667	.00000	.99999	16 41 22	15.3258	.00000	.99999	17 43 19	16.3712	.00000	.99972
34 36 7	14.7121	.00001	.99999	51 33 13	15.3429	.00001	.99999	52 31 16	16.4167	.00000	.99973
32 36 37	14.7121	.00001	.99999	51 29 19	15.3429	.00001	.99999	14 57 28	16.4167	.00000	.99973
51 32 18	14.7273	.00001	.99999	15 29 25	15.3429	.00001	.99999	51 37 11	16.4318	.00000	.99972
15 36 28	14.7273	.00000	.99999	15 53 31	15.3429	.00000	.99999	51 27 21	16.4318	.00000	.99972
37 27 35	14.7348	.00001	.99999	33 29 7	15.3429	.00000	.99999	15 41 23	16.4318	.00000	.99972
29 41 9	14.7348	.00000	.99999	33 29 27	15.3429	.00001	.99999	15 51 33	16.4318	.00000	.99972
44 25 30	14.7348	.00000	.99999	37 56 6	15.3939	.00000	.99999	52 32 15	16.4394	.00000	.99972
22 43 14	14.7348	.00001	.99999	29 52 38	15.3939	.00001	.99999	44 24 29	16.4394	.00000	.99973
51 33 15	14.7955	.00001	.99999	46 46 7	15.4394	.00000	.99999	44 24 31	16.4394	.00000	.99973
15 35 29	14.7955	.00000	.99999	27 42 37	15.4394	.00001	.99999	22 44 13	16.4394	.00000	.99973
51 31 17	14.7955	.00001	.99999	43 50 6	15.4648	.00000	.99999	27 44 15	16.4394	.00000	.99973
43 47 7	14.7955	.00000	.99999	23 34 36	15.4648	.00001	.99999	27 44 15	16.4394	.00000	.99973
43 25 29	14.7955	.00000	.99999	49 41 9	15.4648	.00000	.99999	52 30 17	16.4394	.00000	.99973
21 43 10	14.7955	.00001	.99999	41 25 33	15.4648	.00000	.99999	14 58 27	16.4394	.00000	.99973
14 31 37	14.7955	.00001	.99999	25 43 11	15.4648	.00001	.99999	52 31 16	16.4394	.00000	.99973
15 37 27	14.7955	.00001	.99999	17 47 35	15.4648	.00000	.99999	14 55 30	16.4394	.00000	.99973
47 44 8	14.8485	.00000	.99999	49 42 8	15.7500	.00000	.99999	47 24 28	16.4667	.00000	.99975
35 48 36	14.8485	.00001	.99999	44 25 26	15.7500	.00000	.99999	43 24 32	16.4667	.00000	.99975
31 44 8	14.8485	.00000	.99999	36 27 36	15.7500	.00000	.99999	23 44 12	16.4667	.00000	.99975
19 44 36	14.8485	.00001	.99999	50 41 8	15.7500	.00000	.99999	19 44 16	16.4667	.00000	.99975
43 25 34	14.8485	.00000	.99999	18 43 18	15.7500	.00000	.99999	49 42 4	16.7576	.00000	.99975
43 25 34	14.8485	.00000	.99999	18 43 18	15.7500	.00000	.99999	37 24 36	16.7576	.00000	.99975
43 25 34	14.8485	.00000	.99999	18 43 18	15.7500	.00000	.99999	29 42 8	16.7576	.00000	.99975
43 25 34	14.8485	.00000	.99999	18 43 18	15.7500	.00000	.99999	17 46 36	16.7576	.00000	.99975
43 25 34	14.8485	.00000	.99999	18 43 18	15.7500	.00000	.99999	52 29 18	16.7576	.00000	.99975
43 25 34	14.8485	.00000	.99999	18 43 18	15.7500	.00000	.99999	14 59 26	16.7576	.00000	.99975
43 25 34	14.8485	.00000	.99999	18 43 18	15.7500	.00000	.99999	34 59 4	16.7576	.00000	.99975
43 25 34	14.8485	.00000	.99999	18 43 18	15.7500	.00000	.99999	52 29 18	16.7576	.00000	.99975
43 25 34	14.8485	.00000	.99999	18 43 18	15.7500	.00000	.99999	34 59 4	16.7576	.00000	.99975
43 25 34	14.8485	.00000	.99999	18 43 18	15.7500	.00000	.99999	52 29 18	16.7576	.00000	.99975
43 25 34	14.8485	.00000	.99999	18 43 18	15.7500	.00000	.99999	34 59 4	16.7576	.00000	.99975
43 25 34	14.8485	.00000	.99999	18 43 18	15.7500	.00000	.99999	52 29 18	16.7576	.00000	.99975
43 25 34	14.8485	.00000	.99999	18 43 18	15.7500	.00000	.99999	34 59 4	16.7576	.00000	.99975
43 25 34	14.8485	.00000	.99999	18 43 18	15.7500	.00000	.99999	52 29 18	16.7576	.00000	.99975
43 25 34	14.8485	.00000	.99999	18 43 18	15.7500	.00000	.99999	34 59 4	16.7576	.00000	.99975
43 25 34	14.8485	.00000	.99999	18 43 18	15.7500	.00000	.99999	52 29 18	16.7576	.00000	.99975
43 25 34	14.8485	.00000	.99999	18 43 18	15.7500	.00000	.99999	34 59 4	16.7576	.00000	.99975
43 25 34	14.8485	.00000	.99999	18 43 18	15.7500	.00000	.99999	52 29 18	16.7576	.00000	.99975
43 25 34	14.8485	.00000	.99999	18 43 18	15.7500	.00000	.99999	34 59 4	16.7576	.00000	.99975
43 25 34	14.8485	.00000	.99999	18 43 18	15.7500	.00000	.99999	52 29 18	16.7576	.00000	.99975
43 25 34	14.8485	.00000	.99999	18 43 18	15.7500	.00000	.99999	34 59 4	16.7576	.00000	.99975
43 25 34	14.8485	.00000	.99999	18 43 18	15.7500	.00000	.99999	52 29 18	16.7576	.00000	.99975
43 25 34	14.8485	.00000	.99999	18 43 18	15.7500	.00000	.99999	34 59 4	16.7576	.00000	.99975
43 25 34	14.8485	.00000	.99999	18 43 18	15.7500	.00000	.99999	52 29 18	16.7576	.00000	.99975
43 25 34	14.8485	.00000	.99999	18 43 18	15.7500	.00000	.99999	34 59 4	16.7576	.00000	.99975
43 25 34	14.8485	.00000	.99999	18 43 18	15.7500	.00000	.99999	52 29 18	16.7576	.00000	.99975
43 25 34	14.8485	.00000	.99999	18 43 18	15.7500	.00000	.99999	34 59 4	16.7576	.00000	.99975
43 25 34	14.8485	.00000	.99999	18 43 18	15.7500	.00000	.99999	52 29 18	16.7576	.00000	.99975
43 25 34	14.8485	.00000	.99999	18 43 18	15.7500	.00000	.99999	34 59 4	16.7576	.00000	.99975
43 25 34	14.8485	.00000	.99999	18 43 18	15.7500	.00000	.99999	52 29 18	16.7576	.00000	.99975
43 25 34	14.8485	.00000	.99999	18 43 18	15.7500	.00000	.99999	34 59 4	16.7576	.00000	.99975
43 25 34	14.8485	.00000	.99999	18 43 18	15.7500	.00000	.99999	52 29 18	16.7576	.00000	.99975
43 25 34	14.8485	.00000	.99999	18 43 18	15.7500	.00000	.99999	34 59 4	16.7576	.00000	.99975
43 25 34	14.8485	.00000	.99999	18 43 18	15.7500	.00000	.99999	52 29 18	16.7576	.00000	.99975
43 25 34	14.8485	.00000	.99999	18 43 18	15.7500	.00000	.99999	34 59 4	16.7576	.00000	.99975
43 25 34	14.8485	.00000	.99999	18 43 18	15.7500	.00000	.99999	52 29 18	16.7576	.00000	.99975
43 25 34	14.8485	.00000	.99999	18 43 18	15.7500	.00000	.99999	34 59 4	16.7576	.00000	.99975
43 25 34	14.8485	.00000	.99999	18 43 18	15.7500	.00000	.99999	52 29 18	16.7576	.00000	.99975
43 25 34	14.8485	.00000	.99999	18 43 18	15.7500	.00000	.99999	34 59 4	16.7576	.00000	.99975
43 25 34	14.8485	.00000	.99999	18 43 18	15.7500	.00000	.99999	52 29 18	16.7576	.00000	.99975
43 25 34	14.8485	.00000	.99999	18 43 18	15.7500	.00000	.99999	34 59 4	16.7576	.00000	.99975
43 25 34	14.8485	.00000	.99999	18 43 18	15.7500	.00000	.99999	52 29 18	16.7576	.00000	.99975
43 25 34	14.8485	.00000	.99999	18 43 18	15.7500	.00000	.99999	34 59 4	16.7576	.00000	.99975
43 25 34	14.8485	.00000	.99999	18 43 18	15.7500	.00000	.99999	52 29 18	16.7576	.00000	.99975
43 25 34	14.8485	.00000	.99999	18 43 18	15.7500	.00000	.99999	34 59 4	16.7576	.00000	.99975
43 25 34	14.8485	.00000	.99999	18 43 18	15.7500	.00000	.99999	52 29 18	16.7576	.00000	.99975
43 25 34	14.8485	.00000	.99999	18 43 18	15.7500	.00000	.99999	34 59 4	16.7576	.00000	.99975
43 25 34	14.8485	.00000	.99999	18 43 18	15.7500	.00000	.99999	52 29 18	16.757		



FROM COPY FURNISHED TO DDC

CHI SQUARE = P0(1/3), P1(4/9), P2(2/9) N=99

U	V	W	X2	FEAT	CUM FEAT	U	V	W	X2	FEAT	CUM FEAT
18	67	14	21.7500	0.0000	0.0000	31	27	21	23.6965	0.0000	0.0000
19	61	90	21.7500	0.0000	0.0000	33	22	24	23.3880	0.0000	0.0000
53	36	8	21.8865	0.0000	0.0000	59	23	22	23.3864	0.0000	0.0000
61	22	36	21.8865	0.0000	0.0000	42	35	2	23.3864	0.0000	0.0000
53	66	8	21.8865	0.0000	0.0000	42	21	36	23.3864	0.0000	0.0000
43	21	33	21.8864	0.0000	0.0000	24	67	8	23.3864	0.0000	0.0000
41	67	11	21.8864	0.0000	0.0000	23	2	42	23.3864	0.0000	0.0000
53	31	3	21.8864	0.0000	0.0000	41	34	2	23.3939	0.0000	0.0000
21	37	61	21.8864	0.0000	0.0000	25	34	42	23.3939	0.0000	0.0000
52	46	1	21.8939	0.0000	0.0000	43	54	2	23.4848	0.0000	0.0000
16	49	39	21.8939	0.0000	0.0000	23	34	42	23.4848	0.0000	0.0000
49	21	29	22.0076	0.0000	0.0000	5	45	4	23.5076	0.0000	0.0000
49	21	29	22.0076	0.0000	0.0000	48	57	2	23.5076	0.0000	0.0000
49	24	41	22.0076	0.0000	0.0000	26	34	2	23.5076	0.0000	0.0000
47	67	15	22.0076	0.0000	0.0000	16	43	40	23.5076	0.0000	0.0000
23	62	9	22.0009	0.0000	0.0000	47	21	37	23.5076	0.0000	0.0000
53	26	40	22.1909	0.0000	0.0000	19	68	12	23.5756	0.0000	0.0000
53	23	23	22.1894	0.0000	0.0000	48	27	31	23.5909	0.0000	0.0000
46	21	34	22.1348	0.0000	0.0000	16	68	13	23.5909	0.0000	0.0000
22	67	1	22.1348	0.0000	0.0000	48	48	3	23.5909	0.0000	0.0000
52	42	26	22.3685	0.0000	0.0000	18	40	41	23.5909	0.0000	0.0000
16	68	19	22.3685	0.0000	0.0000	37	23	39	23.6639	0.0000	0.0000
43	5	2	22.3685	0.0000	0.0000	29	65	9	23.6639	0.0000	0.0000
46	31	4	22.3676	0.0000	0.0000	52	21	26	23.6894	0.0000	0.0000
51	21	24	22.4167	0.0000	0.0000	49	34	2	23.6894	0.0000	0.0000
47	67	16	22.4167	0.0000	0.0000	22	45	2	23.6894	0.0000	0.0000
51	23	38	22.4167	0.0000	0.0000	14	67	18	23.6894	0.0000	0.0000
28	65	6	22.4167	0.0000	0.0000	46	24	33	23.7121	0.0000	0.0000
58	24	21	22.5014	0.0000	0.0000	29	68	11	23.7121	0.0000	0.0000
53	44	3	22.5000	0.0000	0.0000	39	58	2	23.7273	0.0000	0.0000
36	24	34	22.5000	0.0000	0.0000	39	22	38	23.7273	0.0000	0.0000
32	64	5	22.5000	0.0000	0.0000	27	66	6	23.7273	0.0000	0.0000
32	28	41	22.5000	0.0000	0.0000	27	36	40	23.7375	0.0000	0.0000
39	46	4	22.5738	0.0000	0.0000	49	20	30	23.7376	0.0000	0.0000
40	27	47	22.5000	0.0000	0.0000	58	68	14	23.7376	0.0000	0.0000

(13)

U	V	W	X2	FEAT	CUM	FEAT	U	V	W	X2	FEAT	CUM	FEAT
25	67	7	46.8188	0.0000	0.9999		46	68	1	25.7127	0.0000	0.9999	
49	47	3	46.8171	0.0000	0.9999		46	32	45	25.7127	0.0000	0.9999	
17	41	1	46.8112	0.0000	0.9999		43	55	1	25.8258	0.0000	0.9999	
54	22	3	46.8092	0.0000	0.9999		41	57	1	25.8258	0.0000	0.9999	
46	51	2	46.8167	0.0000	0.9999		25	51	43	25.8258	0.0000	0.9999	
20	37	42	46.8167	0.0000	0.9999		25	33	43	25.8258	0.0000	0.9999	
44	20	35	46.8398	0.0000	0.9999		50	19	30	25.8712	0.0000	0.9999	
22	68	9	46.8398	0.0000	0.9999		46	19	39	25.8712	0.0000	0.9999	
37	60	2	46.8888	0.0000	0.9999		26	69	10	25.8712	0.0000	0.9999	
19	28	42	46.8888	0.0000	0.9999		16	69	14	25.8712	0.0000	0.9999	
51	46	8	26.8455	0.0000	0.9999		43	26	2	25.9448	0.0000	0.9999	
11	26	48	26.8455	0.0000	0.9999		43	26	1	25.9448	0.0000	0.9999	
13	18	18	26.8455	0.0000	0.9999		41	58	1	25.9448	0.0000	0.9999	
15	40	46	26.8455	0.0000	0.9999		26	30	43	25.9448	0.0000	0.9999	
53	21	25	26.8536	0.0000	0.9999		22	34	43	25.9448	0.0000	0.9999	
33	63	3	26.8136	0.0000	0.9999		37	22	40	26.2121	0.0000	0.9999	
33	25	41	26.8136	0.0000	0.9999		49	6	4	26.2121	0.0000	0.9999	
28	22	39	26.8939	0.0000	0.9999		51	19	29	26.2500	0.0000	0.9999	
28	46	5	26.8939	0.0000	0.9999		15	49	15	26.2500	0.0000	0.9999	
47	50	2	26.9398	0.0000	0.9999		51	45	3	26.2500	0.0000	0.9999	
19	38	42	26.9398	0.0000	0.9999		45	53	1	26.2500	0.0000	0.9999	
36	61	4	25.8227	0.0000	0.9999		45	1	35	26.2500	0.0000	0.9999	
36	43	40	25.8227	0.0000	0.9999		39	49	3	26.2500	0.0000	0.9999	
45	27	42	25.8227	0.0000	0.9999		39	21	39	26.2500	0.0000	0.9999	
43	29	36	25.8303	0.0000	0.9999		47	6	5	26.2500	0.0000	0.9999	
43	68	8	25.8303	0.0000	0.9999		27	29	43	26.2500	0.0000	0.9999	
41	21	38	25.8439	0.0000	0.9999		21	69	9	26.2500	0.0000	0.9999	
26	67	6	25.8439	0.0000	0.9999		15	43	41	26.2500	0.0000	0.9999	
52	20	47	25.8667	0.0000	0.9999		49	48	2	26.3030	0.0000	0.9999	
19	68	17	25.8667	0.0000	0.9999		17	40	42	26.3030	0.0000	0.9999	
51	46	3	25.8756	0.0000	0.9999		34	63	2	26.4167	0.0000	0.9999	
16	42	41	25.8756	0.0000	0.9999		32	42	26	26.4167	0.0000	0.9999	
53	41	5	25.8821	0.0000	0.9999		35	23	41	2			

(14)

CHI SW0481 = P0(1/3), P1(6/9), P2(1/3) N=99

U	V	W	X2	PEAK	CUM (PK)	U	V	W	X2	PEAK	CUM (PK)
17	37	8.5	27.6980	0.0000	0.99999	52	18	29	28.5405	0.0000	0.99999
20	47	2	27.7139	0.0000	0.99999	54	17	15	28.5430	0.0000	0.99999
25	62	9	27.7139	0.0000	0.99999	55	6	2	28.5530	0.0000	0.99999
33	64	6	27.7277	0.0000	0.99999	56	29	2	28.5965	0.0000	0.99999
33	24	42	27.7277	0.0000	0.99999	47	59	0	28.5985	0.0000	0.99999
52	94	2	27.7323	0.0000	0.99999	21	54	4	28.6044	0.0000	0.99999
43	19	33	27.7323	0.0000	0.99999	54	54	4	28.6165	0.0000	0.99999
23	69	7	27.7401	0.0000	0.99999	45	18	36	28.6369	0.0000	0.99999
53	19	27	27.7424	0.0000	0.99999	21	76	8	28.6369	0.0000	0.99999
38	41	40	27.7576	0.0000	0.99999	39	20	40	28.6901	0.0000	0.99999
29	67	8	27.7576	0.0000	0.99999	47	68	4	28.6901	0.0000	0.99999
49	18	32	27.7667	0.0000	0.99999	27	28	44	28.6921	0.0000	0.99999
17	74	12	27.7667	0.0000	0.99999	39	60	0	28.6921	0.0000	0.99999
48	18	33	27.7681	0.0000	0.99999	37	21	41	28.6967	0.0000	0.99999
19	78	11	27.7681	0.0000	0.99999	28	62	5	28.6967	0.0000	0.99999
48	5	1	27.7681	0.0000	0.99999	26	45	2	28.6921	0.0000	0.99999
33	62	1	27.7681	0.0000	0.99999	46	53	0	28.6921	0.0000	0.99999
35	22	4	27.7681	0.0000	0.99999	53	18	28	29.1212	0.0000	0.99999
27	66	3	27.7681	0.0000	0.99999	52	45	2	29.1439	0.0000	0.99999
37	28	43	27.7681	0.0000	0.99999	5	48	1	29.1467	0.0000	0.99999
18	38	43	27.7681	0.0000	0.99999	18	64	1	29.1467	0.0000	0.99999
40	20	39	27.7121	0.0000	0.99999	52	24	43	29.1467	0.0000	0.99999
35	68	5	27.721	0.0000	0.99999	16	40	43	29.1467	0.0000	0.99999
40	16	31	27.7630	0.0000	0.99999	48	18	37	29.2576	0.0000	0.99999
13	74	1	27.7630	0.0000	0.99999	41	18	33	29.2576	0.0000	0.99999
11	74	3	27.7630	0.0000	0.99999	41	18	33	29.2633	0.0000	0.99999
19	74	1	27.7630	0.0000	0.99999	25	69	5	29.3314	0.0000	0.99999
51	66	4	28.6747	0.0000	0.99999	35	21	42	29.3350	0.0000	0.99999
51	18	35	28.6747	0.0000	0.99999	51	66	2	29.3030	0.0000	0.99999
13	74	14	28.6747	0.0000	0.99999	28	27	44	29.3258	0.0000	0.99999
19	92	4	28.6747	0.0000	0.99999	38	61	0	29.3258	0.0000	0.99999
46	18	35	28.1667	0.0000	0.99999	19	36	44	29.3939	0.0000	0.99999
40	74	9	28.1667	0.0000	0.99999	47	52	8	29.3939	0.0000	0.99999
33	23	42	28.1338	0.0000	0.99999	46	17	35	29.4258	0.0000	0.99999
32	65	2	28.1338	0.0000	0.99999	17	71	11	29.4258	0.0000	0.99999
19	74	4	28.1955	0.0000	0.99999	47	26	44	29.4445	0.0000	0.99999
49	31	48	28.1955	0.0000	0.99999	50	17	32	29.4445	0.0000	0.99999
42	57	8	28.1955	0.0000	0.99999	50	17	32	29.4636	0.0000	0.99999
42	19	38	28.1955	0.0000	0.99999	54	18	27	29.6712	0.0000	0.99999
49	6	4	28.1955	0.0000	0.99999	16	71	12	29.6712	0.0000	0.99999
43	32	44	28.3030	0.0000	0.99999	48	17	34	29.6712	0.0000	0.99999
43	56	4	28.3030	0.0000	0.99999	18	71	10	29.6712	0.0000	0.99999
49	49	1	28.3712	0.0000	0.99999	18	37	40	29.6712	0.0000	0.99999
33	63	1	28.3712	0.0000	0.99999	48	51	0	29.6712	0.0000	0.99999
31	45	3	28.3712	0.0000	0.99999	43	18	38	30.0303	0.0000	0.99999
17	93	3	28.3712	0.0000	0.99999	23	70	6	30.0303	0.0000	0.99999
41	33	44	28.3712	0.0000	0.99999	37	70	3	30.0662	0.0000	0.99999
41	58	4	28.3939	0.0000	0.99999	33	17	31	30.0662	0.0000	0.99999
22	33	44	28.4167	0.0000	0.99999	15	71	13	30.0662	0.0000	0.99999
44	55	4	28.4167	0.0000	0.99999	15	41	43	30.0662	0.0000	0.99999

(15)

U	V	W	X2	P(A)	CUM P(B)	U	V	W	X2	P(A)	CUM P(B)
32	65	1	30.00682	0.0000	0.99999	34	65	6	32.15301	0.00000	0.99999
33	20	45	30.00682	0.0000	0.99999	50	16	33	32.07588	0.00000	0.99999
47	17	35	30.01894	0.0000	0.99999	51	18	11	32.07588	0.00000	0.99999
19	71	9	30.01894	0.0000	0.99999	49	16	34	32.12121	0.00000	0.99999
38	20	41	30.02576	0.0000	0.99999	17	72	10	32.12121	0.00000	0.99999
28	68	5	30.02576	0.0000	0.99999	28	26	45	32.16667	0.00000	0.99999
30	48	2	30.03394	0.0000	0.99999	15	42	8	32.16667	0.00000	0.99999
52	17	50	30.04167	0.0000	0.99999	53	46	0	32.18181	0.00000	0.99999
48	19	40	30.04167	0.0000	0.99999	51	16	32	32.18181	0.00000	0.99999
28	69	4	30.04167	0.0000	0.99999	15	72	12	32.18181	0.00000	0.99999
14	71	14	30.04167	0.0000	0.99999	53	45	1	32.1894	0.00000	0.99999
30	25	46	30.04773	0.0000	0.99999	35	21	43	32.1894	0.00000	0.99999
36	63	0	30.04773	0.0000	0.99999	51	67	1	32.1894	0.00000	0.99999
36	21	42	30.04773	0.0000	0.99999	48	16	35	32.3182	0.00000	0.99999
30	67	2	30.04773	0.0000	0.99999	18	72	9	32.3182	0.00000	0.99999
17	73	44	30.05212	0.0000	0.99999	28	68	46	32.3182	0.00000	0.99999
49	10	30	30.05212	0.0000	0.99999	51	16	31	32.3394	0.00000	0.99999
46	17	36	30.05985	0.0000	0.99999	14	72	13	32.3394	0.00000	0.99999
26	71	8	30.05985	0.0000	0.99999	47	16	36	32.6667	0.00000	0.99999
53	17	29	30.06167	0.0000	0.99999	14	72	8	32.6667	0.00000	0.99999
23	31	45	30.06167	0.0000	0.99999	43	47	39	32.7384	0.00000	0.99999
42	18	39	30.09545	0.0000	0.99999	29	25	45	32.7384	0.00000	0.99999
24	70	5	30.09545	0.0000	0.99999	23	71	5	32.7384	0.00000	0.99999
24	30	45	30.09545	0.0000	0.99999	53	16	31	32.9685	0.00000	0.99999
22	32	45	30.09688	0.0000	0.99999	17	37	45	32.9685	0.00000	0.99999
52	46	1	31.00758	0.0000	0.99999	33	65	0	33.00000	0.00000	0.99999
34	22	43	31.00758	0.0000	0.99999	53	22	32	33.00000	0.00000	0.99999
13	73	1	31.05759	0.0000	0.99999	55	0	0	33.1439	0.00000	0.99999
55	29	45	31.05985	0.0000	0.99999	38	19	42	33.1439	0.00000	0.99999
45	17	37	31.15991	0.0000	0.99999	28	69	2	33.1439	0.00000	0.99999
43	71	7	31.15991	0.0000	0.99999	46	16	37	33.1667	0.00000	0.99999
21	33	45	31.15991	0.0000	0.99999	20	72	7	33.1667	0.00000	0.99999
31	24	44	31.2121	0.0000	0.99999	40	18	41	33.2576	0.00000	0.99999
35	64	0	31.2121	0.0000	0.99999	26	72	3	33.2576</		

(16)

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TABLE B

CHI SQUARE - F(11/33), P(14/93), P(21/79) N=99

U	V	W	X2	PIA3	CUM	PIB3	U	V	W	X2	PIA3	CUM	PIB3
32	67	4	36.5530	.00000	.99999		23	49	47	36.5530	.00000	.99999	
33	45	4	36.1899	.00000	.99999		45	15	39	36.6136	.00000	.99999	
35	46	4	36.2121	.00000	.99999		21	73	5	36.6136	.00000	.99999	
26	27	46	36.2348	.00000	.99999		21	31	47	36.6136	.00000	.99999	
19	34	46	36.3939	.00000	.99999		42	16	41	36.6818	.00000	.99999	
33	15	34	36.4167	.00000	.99999		24	72	5	36.6818	.00000	.99999	
14	73	11	36.4167	.00000	.99999		14	28	47	36.6818	.00000	.99999	
31	15	33	36.4318	.00000	.99999		20	32	47	36.6830	.00000	.99999	
13	73	21	36.4318	.00000	.99999		51	14	34	36.6182	.00000	.99999	
13	39	46	36.4318	.00000	.99999		15	74	10	36.6182	.00000	.99999	
48	15	30	36.5530	.00000	.99999		15	38	46	36.6182	.00000	.99999	
17	73	9	36.5530	.00000	.99999		52	14	33	36.6939	.00000	.99999	
22	15	31	36.5985	.00000	.99999		52	14	35	36.6939	.00000	.99999	
48	13	12	36.5985	.00000	.99999		14	74	9	36.6939	.00000	.99999	
48	10	39	36.6212	.00000	.99999		14	74	11	36.6939	.00000	.99999	
42	74	2	36.6212	.00000	.99999		25	27	47	36.9167	.00000	.99999	
39	10	42	36.6364	.00000	.99999		19	33	47	37.0945	.00000	.99999	
27	74	2	36.6364	.00000	.99999		53	14	32	37.1212	.00000	.99999	
17	46	46	36.6364	.00000	.99999		49	14	36	37.1212	.00000	.99999	
37	19	43	36.7348	.00000	.99999		17	74	8	37.1212	.00000	.99999	
29	49	1	36.7348	.00000	.99999		34	20	45	37.1667	.00000	.99999	
48	15	36	36.8429	.00000	.99999		26	26	47	37.2576	.00000	.99999	
18	73	8	36.8429	.00000	.99999		31	22	46	37.3030	.00000	.99999	
13	35	46	36.8429	.00000	.99999		54	14	31	37.5000	.00000	.99999	
53	15	31	36.9167	.00000	.99999		48	14	37	37.5000	.00000	.99999	
42	17	4	36.9167	.00000	.99999		12	74	7	37.5000	.00000	.99999	
23	71	3	36.9167	.00000	.99999		18	34	47	37.5000	.00000	.99999	
32	42	45	36.9167	.00000	.99999		44	15	47	37.5076	.00000	.99999	
29	45	46	36.9167	.00000	.99999		22	73	4	37.5076	.00000	.99999	
53	21	44	36.9167	.00000	.99999		39	17	43	37.7045	.00000	.99999	
31	68	1	36.9167	.00000	.99999		27	71	1	37.7045	.00000	.99999	
47	15	37	36.9803	.00000	.99999		27	45	47	37.7045	.00000	.99999	
19	73	7	36.9803	.00000	.99999		37	14	44	37.7045	.00000	.99999	
58	15	32	36.9803	.00000	.99999		29	70	8	37.8485	.00000	.99999	
17	36	46	36.9803	.00000	.99999		41	16	42	37.9594	.00000	.99999	
43	16	46	36.9803	.00000	.99999		25	72	2	37.9594	.00000	.99999	
23	74	4	36.9803	.00000	.99999		17	35	47	38.0076	.00000	.99999	
29	48	46	36.9803	.00000	.99999		47	14	36	38.0535	.00000	.99999	
48	15	38	36.9803	.00000	.99999		19	74	6	38.0535	.00000	.99999	
22	73	8	36.9803	.00000	.99999		32	21	46	38.2348	.00000	.99999	
13	37	46	36.9803	.00000	.99999		28	24	47	38.2576	.00000	.99999	
33	21	45	36.9803	.00000	.99999		35	15	45	38.3712	.00000	.99999	
34	18	43	36.9803	.00000	.99999		43	15	41	38.3712	.00000	.99999	
48	7	1	36.9803	.00000	.99999		43	73	3	38.5530	.00000	.99999	
42	71	42	36.9803	.00000	.99999		16	34	47	38.6212	.00000	.99999	
35	71	4	36.9803	.00000	.99999		46	14	39	38.7121	.00000	.99999	
35	19	44	36.9803	.00000	.99999		20	74	5	38.7121	.00000	.99999	
30	69	4	36.9803	.00000	.99999		29	23	47	38.9167	.00000	.99999	
33	23	46	36.9803	.00000	.99999		35	20	46	39.2727	.00000	.99999	
42	30	47	36.9803	.00000	.99999		52	13	34	39.3258	.00000	.99999	

(17)

TABLE B

U	V	W	X2	PIA3	CUM	PIB3	U	V	W	X2	PIA3	CUM	PIB3
38	17	44	39.3258	.00000	.99999		46	13	40	41.6894	.00000	.99999	
14	75	10	39.3258	.00000	.99999		29	75	4	41.6894	.00000	.99999	
28	71	0	39.3258	.00000	.99999		52	12	35	41.6894	.00000	.99999	
51	13	35	39.3449	.00000	.99999		14	74	9	41.6894	.00000	.99999	
15	75	9	39.3449	.00000	.99999		53	12	34	41.6894	.00000	.99999	
15	37	47	39.3449	.00000	.99999		51	12	36	42.0000	.00000	.99999	
40	16	43	39.3449	.00000	.99999		15	74	8	42.0000	.00000	.99999	
26	72	1	39.3449	.00000	.99999		15	36	48	42.0000	.00000	.99999	
53	13	33	39.4621	.00000	.99999		54	12	33	42.1364	.00000	.99999	
55	13	36	39.5076	.00000	.99999		24	22	48	42.2121	.00000	.99999	
22	29	48	39.5076	.00000	.99999		54	12	37	42.2576	.00000	.99999	
18	75	8	39.5076	.00000	.99999		14	74	7	42.2576	.00000	.99999	
41	14	49	39.5455	.00000	.99999		44	15	44	42.3985	.00000	.99999	
21	74	4	39.5455	.00000	.99999		46	73	2	42.3985	.00000	.99999	
21	38	48	39.5455	.00000	.99999		45	13	41	42.6136	.00000	.99999	
23	28	48	39.5758	.00000	.99999		21	73	3	42.6136	.00000	.99999	
36	18	45	39.6818	.00000	.99999		21	29	49	42.6136	.00000	.99999	
30	22	47	39.6818	.00000	.99999		33	19	47	42.6136	.00000	.99999	
30	21	48	39.6894	.00000	.99999		42	28	49	42.6212	.00000	.99999	
54	13	32	39.7500	.00000	.99999		36	15	45	42.6212	.00000	.99999	
42	15	42	39.7500	.00000	.99999		49	12	38	42.6667	.00000	.99999	
24	73	2	39.7500	.00000	.99999		17	76	6	42.6667	.00000	.99999	
24	27	48	39.7500	.00000	.99999		2	30	49	42.7121	.00000	.99999	
49	13	37	39.8258	.00000	.99999		43	27	49	42.7348	.00000	.99999	
17	75	7	39.8258	.00000	.99999		19	31	49	42.9167	.00000	.99999	
19	32	48	39.8594	.00000	.99999		42	14	43	42.9545	.00000	.99999	
25	26	48	40.0335	.00000	.99999		44	74	1	42.9545	.00000	.99999	
48	13	38	40.2955	.00000	.99999		24	25	49	42.9545	.00000	.99999	
16	75	6	40.2955	.00000	.99999		36	17	46	43.0227	.00000	.99999	
18	33	48	40.2955	.00000	.99999		3	21	48	43.0227	.00000	.99999	
34	19	46	40.4167	.00000	.99999		48	12	39	43.2273	.00000	.99999	
26	25	48	40.4167	.00000	.99999		14	76	5	43.2273	.00000	.99999	
44	14	41	40.5303	.00000	.99999		16	32	49	43.2273	.00000	.99999	
22	74	3	40.5303	.00000	.99999		25	25	49	43.2603	.00000	.99999	
31	21	47	40.5303	.00000	.99999		17	33	49	43.6439	.00000	.99999	
17	34	48	40.7576	.00000	.99999		44	15	42	43.6894	.00000	.99999	
39	16	44	40.9391	.00000	.99999		22	75	2	43.6894	.00000	.99999	
27	72	0	40.9391	.00000	.99999		24	24	49	43.7121	.00000	.99999	
27	44	48	40.9391	.00000	.99999		34	14	47	43.8485	.00000	.99999	
42	13	39	40.9167	.00000	.99999		47	12	40	43.9394	.00000	.99999	
19	75	5	40.9167	.00000	.99999		51	20	48	43.9394	.00000	.99999	
41	15	43	41.0985	.00000	.99999		14	76	4	43.9394	.00000	.99999	
37	17	45	41.0985	.00000	.99999		16	34	49	44.1667	.00000	.99999	
25	73	1	41.0985	.00000	.99999		39	15	45	44.2500	.00000	.99999	
16	35	48	41.3258	.00000	.99999		27	23	49	44.2500	.00000	.99999	
26	23	48	41.3258	.00000	.99999		41	14	44	44.3939	.00000	.99999	
32	20	47	41.5303	.00000	.99999		25	74	0	44.3939	.00000	.99999	
43	14	42	41.6667	.00000	.99999		37	16	46	44.4885	.00000	.99999	
35	18	46	41.6667	.00000	.99999		51	11	35	44.5530	.00000	.99999	
23	74	2	41.6667	.00000	.99999		52	11	36	44.5985	.00000	.99999	

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TABLE B

CHI SQUARE - F(11/33), P(14/93), P(21/79) N=99

U	V	W	X2	PIA3	CUM	PIB3	U	V	W	X2	PIA3	CUM	PIB3
19	77	8	44.5985	.00000	.99999		15	78	6	47.7273	.00000	.99999	
54	11	34	44.6591	.00000	.99999		39	14	46	47.7273	.00000	.99999	
51	11	37	44.7955	.00000	.99999		27	42	50	47.7273	.00000	.99999	
13	77	7	44.7955	.00000	.99999		15	34	50	47.7273	.00000	.99999	
13	35	49	44.7955	.00000	.99999		41	13	45	47.8258	.00000	.99999	
46	12	41	44.8630	.00000	.99999		37	35	47	48.0276	.00000	.99999	
20	76	5	44.8630	.00000	.99999		46	11	42	48.0530	.00000	.99999	
28	42	49	44.8939	.00000	.99999		26	77	2	48.0530	.00000	.99999	
43	13	43	44.9167	.00000	.99999		50	10	39	48.1687	.00000	.99999	
43	75	1	44.9167	.00000	.99999		16	78	5	48.1687	.00000	.99999	
43	19	48	44.9621	.00000	.99999		43	12	44	48.3530	.00000	.99999	
33	77	47	44.9621	.00000	.99999		23	70	0	48.3430	.00000	.99999	
100	10	38	44.9350	.00000	.99999		48	21	50	48.4167	.00000	.99999	
16	77	4	44.9350	.00000	.99999		32	16	49	48.5353	.00000	.99999	
48	14	39	44.9639	.00000	.99999		35	16	48	48.6667	.00000	.99999	
29	24	49	44.9639	.00000	.99999		49	10	40	48.7576	.00000	.99999	
17	77	5	44.9639	.00000	.99999		17	78	4	48.7576	.00000	.99999	
45	14	42	44.96162	.00000	.99999		45	11	43	49.1591	.00000	.99999	
21	76	2	44.96162	.00000	.99999		21	77	1	49.1591	.00000	.99999	
21	46	50	44.96162	.00000	.99999		21	27	51	49.1591	.00000	.99999	
42	47	36	44.9712	.00000	.99999		20	28	51	49.1667	.00000	.99999	
42	49	53	44.9712	.00000	.99999		29	20	50	49.2121	.00000	.99999	
49	14	45	44.9866	.00000	.99999		22	24	51	49.2576	.00000	.99999	
19	34	50	44.9353	.00000	.99999		19	49	51	49.2605	.00000	.99999	
39	35	46	44.9353	.00000	.99999		23	9	51	49.2605	.00000	.99999	
33	18	48	44.9499	.00000	.99999		48	14	43	49.5070	.00000	.99999	
48	11	44	44.9655	.00000	.99999		18	78	3	49.5000	.00000	.99999	
42	13	44	44.9655	.00000	.99999		18	30	51	49.5000	.00000	.99999	
44	75	0	44.9655	.00000	.99999		40	13	46	49.5076	.00000	.99999	
48	25	0	44.9655	.00000	.99999		38	14	47	49.6212	.00000	.99999	
18	77	4	44.9655	.00000	.99999		33	17	49	49.7045	.00000	.99999	
18	31	50	44.9655	.00000	.99999		42	12	45	49.7727	.00000	.99999	
33	16	47	44.9650	.00000	.99999		24	24	51	49.7727	.00000	.99999	
43	44	43	44.9600	.00000	.99999		17	34	51	49.8258	.00000	.99999	
17	32	50	44.9687	.00000	.99999		54	9	36	50.1136	.00000	.99999	
44	12	43	44.9684	.00000	.99999		23	19	50	50.1136	.00000	.99999	
22	76	1	44.9684	.00000	.99999		53	9	37	50.1694	.00000	.99999	
17	11	47	44.9785	.00000	.99999		25	25	51	50.1694	.00000	.99999	
19	77	3	44.9785	.00000	.99999		16	32	51	50.2576	.00000	.99999	
46	25	50	44.9439	.00000	.99999		17	16	42	50.3934	.00000	.99999	
18	33	50	44.9339	.00000	.99999		19	78	2	50.3939	.00000	.99999	
53	14	30	44.9330	.00000	.99999		52	8	38	50.4177	.00000	.99999	
53	14	30	44.9330	.00000	.99999		44	11	44	50.4167	.00000	.99999	
53	14	30	44.9330	.00000	.99999		14	78	6	50.4167	.00000	.99999	
39	17	48	44.9338	.00000	.99999		22	77	0	50.4167	.00000	.99999	
52	16	37	44.9394	.00000	.99999		46	22	51	50.7121	.00000	.99999	
51	19	49	44.9394	.00000	.99999		15	33	51	50.7455	.00000	.99999	
51	19	49	44.9394	.00000	.99999		51	7	40	51.7000	.00000	.99999	
51	16	38	44.7621	.00000	.99999		15	76	3	52.7555	.00000	.99999	



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TABLE B

CHI SQUARE - P(1/3), P(1/4), P(1/5), N=99

U	V	W	X2	PIAS	CUM	P(1/3)	U	V	W	X2	PIAS	CUM	P(1/3)
48	7	43	88.1167	.00000	.99999		27	18	54	83.0700	.00000	.99999	
17	81	1	88.1167	.00000	.99999		53	5	41	83.0985	.00000	.99999	
41	10	46	88.1394	.00000	.99999		53	8	38	83.2121	.00000	.99999	
39	11	44	88.1773	.00000	.99999		37	11	51	83.4621	.00000	.99999	
27	19	53	88.1773	.00000	.99999		19	20	55	83.4439	.00000	.99999	
43	8	47	88.1863	.00000	.99999		18	28	55	83.4818	.00000	.99999	
54	6	39	88.1863	.00000	.99999		52	8	45	83.4818	.00000	.99999	
37	14	50	88.1939	.00000	.99999		52	8	42	83.4894	.00000	.99999	
23	4	40	88.1939	.00000	.99999		18	43	2	83.4894	.00000	.99999	
28	16	53	88.2034	.00000	.99999		20	24	55	83.7121	.00000	.99999	
18	24	54	88.2485	.00000	.99999		17	27	55	83.8278	.00000	.99999	
23	40	34	88.2712	.00000	.99999		28	17	54	83.8712	.00000	.99999	
48	7	44	88.2939	.00000	.99999		13	7	43	83.8885	.00000	.99999	
18	61	3	88.3318	.00000	.99999		11	23	55	83.8885	.00000	.99999	
14	47	34	88.3318	.00000	.99999		16	28	55	88.0750	.00000	.99999	
43	8	46	88.3318	.00000	.99999		34	14	53	88.1667	.00000	.99999	
21	24	54	88.3318	.00000	.99999		22	22	55	88.1667	.00000	.99999	
32	15	52	88.3318	.00000	.99999		35	12	52	88.3318	.00000	.99999	
27	28	54	88.3318	.00000	.99999		15	28	55	88.4370	.00000	.99999	
52	8	41	88.3318	.00000	.99999		51	5	43	88.4370	.00000	.99999	
18	42	3	88.3318	.00000	.99999		15	87	1	88.4370	.00000	.99999	
33	13	51	88.3318	.00000	.99999		23	21	55	88.5872	.00000	.99999	
22	25	54	88.3318	.00000	.99999		29	16	54	88.5872	.00000	.99999	
18	24	54	88.3318	.00000	.99999		47	8	46	88.5872	.00000	.99999	
23	22	54	88.3318	.00000	.99999		40	8	45	88.5872	.00000	.99999	
28	17	53	88.3318	.00000	.99999		48	8	44	88.5872	.00000	.99999	
51	8	42	88.3318	.00000	.99999		24	26	55	88.5872	.00000	.99999	
13	62	4	88.3318	.00000	.99999		38	10	51	88.5872	.00000	.99999	
13	36	54	88.3318	.00000	.99999		50	5	44	88.5872	.00000	.99999	
43	14	48	88.3318	.00000	.99999		16	83	0	88.5872	.00000	.99999	
42	9	46	88.3318	.00000	.99999		44	7	48	88.5872	.00000	.99999	
24	21	54	88.3318	.00000	.99999		33	13	53	88.5872	.00000	.99999	
47	7	45	88.3318	.00000	.99999		25	19	55	88.5872	.00000	.99999	
38	11	52	88.3318	.00000	.99999		26	11	52	88.5872	.00000	.99999	
33	14	52	88.3318	.00000	.99999		30	15	54	88.5872	.00000	.99999	
46	8	47	88.3318	.00000	.99999		54	4	41	88.5872	.00000	.99999	
23	20	54	88.3318	.00000	.99999		46	4	47	88.5872	.00000	.99999	
52	8	43	88.3318	.00000	.99999		28	18	55	88.5872	.00000	.99999	
18	62	1	88.3318	.00000	.99999		48	8	45	88.5872	.00000	.99999	
38	14	52	88.3318	.00000	.99999		48	8	42	88.5872	.00000	.99999	
38	14	52	88.3318	.00000	.99999		24	12	53	88.5872	.00000	.99999	
28	14	54	88.3318	.00000	.99999		41	8	50	88.5872	.00000	.99999	
46	7	46	88.3318	.00000	.99999		31	14	54	88.5872	.00000	.99999	
49	8	44	88.3318	.00000	.99999		39	9	51	88.5872	.00000	.99999	
17	82	5	88.3318	.00000	.99999		27	17	55	88.5872	.00000	.99999	
58	5	46	88.3318	.00000	.99999		52	4	43	88.5872	.00000	.99999	
38	13	54	88.3318	.00000	.99999		18	84	1	88.5872	.00000	.99999	
41	7	44	88.3318	.00000	.99999		18	28	56	88.5872	.00000	.99999	
21	25	53	88.3318	.00000	.99999		48	5	46	88.5872	.00000	.99999	
39	1	51	88.3318	.00000	.99999								

(21)

TABLE B

CHI SQUARE - P(1/3), P(1/4), P(1/5), N=99

U	V	W	X2	PIAS	CUM	P(1/3)	U	V	W	X2	PIAS	CUM	P(1/3)
24	17	58	77.4516	.00000	.99999		53	9	57	83.5227	.00000	.99999	
42	8	43	77.4516	.00000	.99999		34	7	56	83.5318	.00000	.99999	
24	13	57	78.4476	.00000	.99999		32	11	58	83.5318	.00000	.99999	
55	1	43	78.4476	.00000	.99999		26	14	59	84.1667	.00000	.99999	
48	4	54	78.4476	.00000	.99999		17	22	61	84.3939	.00000	.99999	
38	7	54	78.4476	.00000	.99999		16	23	61	84.4167	.00000	.99999	
48	2	48	78.4476	.00000	.99999		48	1	57	84.4773	.00000	.99999	
38	18	54	78.4476	.00000	.99999		18	21	60	84.4773	.00000	.99999	
13	1	46	78.4476	.00000	.99999		51	0	48	84.5405	.00000	.99999	
49	3	46	78.4476	.00000	.99999		15	24	60	84.5405	.00000	.99999	
52	1	46	78.4476	.00000	.99999		19	20	60	84.6667	.00000	.99999	
38	8	55	78.4476	.00000	.99999		41	4	54	84.8485	.00000	.99999	
30	14	57	78.4476	.00000	.99999		43	3	53	84.8485	.00000	.99999	
24	10	58	78.4476	.00000	.99999		20	19	60	84.8485	.00000	.99999	
17	23	59	80.4476	.00000	.99999		39	5	55	85.1591	.00000	.99999	
46	2	49	80.4476	.00000	.99999		27	13	59	85.1591	.00000	.99999	
18	22	59	80.4476	.00000	.99999		34	8	57	85.1667	.00000	.99999	
15	24	59	80.4476	.00000	.99999		51	10	58	85.3070	.00000	.99999	
41	5	53	80.4476	.00000	.99999		45	2	52	85.3636	.00000	.99999	
18	21	58	80.4476	.00000	.99999		37	8	56	85.3636	.00000	.99999	
53	8	47	80.4476	.00000	.99999		22	17	60	85.4712	.00000	.99999	
13	20	58	80.4476	.00000	.99999		52	0	49	85.4712	.00000	.99999	
43	8	52	80.4476	.00000	.99999		47	1	51	86.1894	.00000	.99999	
39	9	56	80.4476	.00000	.99999		28	12	59	86.2576	.00000	.99999	
20	25	59	80.4476	.00000	.99999		23	16	60	86.4848	.00000	.99999	
58	6	54	80.4476	.00000	.99999		32	9	58	86.7803	.00000	.99999	
27	14	58	80.4476	.00000	.99999		30	7	57	86.8167	.00000	.99999	
51	11	57	80.4476	.00000	.99999		42	3	54	86.8167	.00000	.99999	
43	3	51	80.4476	.00000	.99999		24	15	62	87.2345	.00000	.99999	
21	19	59	80.4476	.00000	.99999		40	4	55	87.2345	.00000	.99999	
37	7	55	80.4476	.00000	.99999		40	4	55	87.2345	.00000	.99999	
22	18	59	80.4476	.00000	.99999		40	4	55	87.2345	.00000	.99999	
42	8	52	80.4476	.00000	.99999		40	4	55	87.2345	.00000	.99999	
22	18	59	80.4476	.00000	.99999		40	4	55	87.2345	.00000	.99999	
42	8	52	80.4476	.00000	.99999		40	4	55	87.2345	.00000	.99999	
22	18	59	80.4476	.00000	.99999		40	4	55	87.2345	.00000	.99999	
42	8	52	80.4476	.00000	.99999		40	4	55	87.2345	.00000	.99999	
22	18	59	80.4476	.00000	.99999		40	4	55	87.2345	.00000	.99999	
42	8	52	80.4476	.00000	.99999		40	4	55	87.2345	.00000	.99999	
22	18	59	80.4476	.00000	.99999		40	4	55	87.2345	.00000	.99999	
42	8	52	80.4476	.00000	.99999		40	4	55	87.2345	.00000	.99999	
22	18	59	80.4476	.00000	.99999		40	4	55	87.2345	.00000	.99999	
42	8	52	80.4476	.00000	.99999		40	4	55	87.2345	.00000	.99999	
22	18	59	80.4476	.00000	.99999		40	4	55	87.2345	.00000	.99999	
42	8	52	80.4476	.00000	.99999		40	4	55	87.2345	.00000	.99999	
22	18	59	80.4476	.00000	.99999		40	4	55	87.2345	.00000	.99999	
42	8	52	80.4476	.00000	.99999		40	4	55	87.2345	.00000	.99999	
22	18	59	80.4476	.00000	.99999		40	4	55	87.2345	.00000	.99999	
42	8	52	80.4476	.00000	.99999		40	4	55	87.2345	.00000	.99999	
22	18	59	80.4476	.00000	.99999		40	4	55	87.2345	.00000	.99999	
42	8	52	80.4476	.00000	.99999		40	4	55	87.2345	.00000	.99999	
22	18	59	80.4476	.00000	.99999		40	4	55	87.2345	.00000	.99999	
42	8	52	80.4476	.00000	.99999		40	4	55	87.2345	.00000	.99999	
22	18	59	80.4476	.00000	.99999		40	4	55	87.2345	.00000	.99999	
42	8	52	80.4476	.00000	.99999		40	4	55	87.2345	.00000	.99999	
22	18	59	80.4476	.00000	.99999		40	4	55	87.2345	.00000	.99999	
42	8	52	80.4476	.00000	.99999		40	4	55	87.2345	.00000	.99999	
22	18	59	80.4476	.00000	.99999		40	4	55	87.2345	.00000	.99999	
42	8	52	80.4476	.00000	.99999		40	4	55	87.2345	.00000	.99999	
22	18	59	80.4476	.00000	.99999		40	4	55	87.2345	.00000	.99999	
42	8	52	80.4476	.00000	.99999		40	4	55	87.2345	.00000	.99999	
22	18	59	80.4476	.00000	.99999		40	4	55	87.2345	.00000	.99999	
42	8	52	80.4476	.00000	.99999		40	4	55	87.2345	.00000	.99999	
22	18	59	80.4476	.00000	.99999		40	4	55	87.2345	.00000	.99999	
42	8	52	80.4476	.00000	.99999		40	4	55	87.2345	.00000	.99999	
22	18	59	80.4476	.00000	.99999		40	4	55	87.2345	.00000	.99999	
42	8	52	80.4476	.00000	.99999		40	4	55	87.2345	.00000	.99999	
22	18	59	80.4476	.00000	.99999		40	4	55	87.2345	.00000	.99999	
42	8	52	80.4476	.00000	.99999		40	4	55	87.2345	.00000	.99999	
22	18	59	80.4476	.00000	.99999		40	4	55	87.2345	.00000	.99999	
42	8	52	80.4476	.00000	.99999		40	4	55	87.2345	.00000	.99999	
22	18	59	80.4476	.00000	.99999		40	4	55	87.2345	.00000	.99999	
42	8	52	80.4476	.00000	.99999		40	4	55	87.2345	.00000	.99999	
22	18	59	80.4476	.00000	.99999		40	4	55	87.2345	.00000	.99999	
42	8	52	80.4476	.00000	.99999		40	4	55	87.2345	.00000	.99999	
22	18	59	80.4476	.00000	.99999		40	4	55	87.2345	.00000	.99999	
42	8	52	80.4476	.00000	.99999		40	4	55	87.2345	.00000	.99999	
22	18	59	80.4476	.00000	.99999		40	4	55	87.2345	.00000	.99999	
42	8	52	80.4476	.00000	.99999		40	4	55	87.2345	.00000	.99999	
22	18	59	80.4476	.00000	.99999		40	4	55	87.2345	.00000	.99999	
42	8	52	80.4476	.00000	.99999		40	4	55	87.2345	.00000	.99999	
22	18	59	80.4476	.00000	.99999		40	4	55	87.2345	.00000	.99999	
42	8	52	80.4476	.00000	.99999		40	4	55	87.2345	.00000	.99999	
22	18	59	80.4476	.00000	.99999		40	4	55	87.2345	.00000	.99999	
42	8	52	80.4476	.00000	.99999		40	4	55	87.2345	.00000	.99999	
22	18	59	80.4476	.00000	.99999		40	4	55	87.2345	.00000	.99999	
42	8	52	80.4476	.00000	.99999		40	4	55	87.2345	.00000	.99999	
22	18	59	80.4476	.00000	.99999		40	4	55	87.2345	.00000	.99999	
42	8	52	80.4476	.00000	.99999		40	4	55	87.2345	.00000	.99999	
22	18	59	80.4476	.00000	.99999		40	4	55	87.2345	.00000	.99999	
42	8	52	80.4476	.00000	.99999		40	4	55	87.2345	.00000	.99999	
22	18	59	80.4476	.00000	.99999		40	4	55	87.2345	.00000	.99999	
42	8	52	80.4476	.00000	.99999		40	4	55	87.2345	.00000	.99999	
22	18	59	80.4476	.00000	.99999		40	4	55	87.2345	.00000	.99999	
42	8	52	80.4476	.00000	.99999		40	4	55	87.2345	.00000	.99999	
22	18	59	80.4476	.00000	.99999		40	4	55	87.2345	.00000	.99999	
42	8	52	80.4476	.00000	.99999		40	4	55	87.2345	.00000	.99999	
22	18	59	80.4476	.00000	.99999		40	4	55	87.2345	.00000	.99999	
42	8	52	80.4476	.00000	.99999		40	4	55	87.2345	.00000	.99999	
22	18	59	80.4476	.00000	.99999		40	4	55	87.2345	.00000	.99999	
42	8	52	80.4476	.00000	.99999		40	4	55	87.2345	.00000	.99999	
22	18	59	80.4476	.00000	.99999		40	4	55	87.2345	.00000	.99999	
42	8	52	80.4476	.00000	.99999		40	4	55	87.2345	.00000	.99999	
22	18	59	80.4476	.00000	.99999		40	4	55	87.2345	.00000	.99999	
42	8	52	80.4476	.00000	.99999		40	4	55	87.2345	.00000	.99999	
22	18	59	80.4476	.00000</									



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TABLE B

CHI SQUARE - P(1/3), P(1/4/9), P(2/2/9) N=99

U	V	W	X2	P(A)	CUM P(B)	U	V	W	X2	P(A)	CUM P(B)
28	6	63	106.6212	.00000	.99999	28	6	65	117.6212	.00000	.99999
32	5	62	107.3258	.00000	.99999	24	9	66	118.2955	.00000	.99999
24	11	64	107.3864	.00000	.99999	32	3	64	118.4167	.00000	.99999
35	3	61	107.4621	.00000	.99999	15	17	67	118.4318	.00000	.99999
40	3	59	107.7121	.00000	.99999	35	1	63	118.5230	.00000	.99999
29	7	63	108.3076	.00000	.99999	16	16	67	118.5232	.00000	.99999
15	19	65	108.0682	.00000	.99999	17	15	67	118.9167	.00000	.99999
16	18	65	108.1667	.00000	.99999	29	5	65	119.0985	.00000	.99999
17	17	65	108.3712	.00000	.99999	18	14	67	119.3182	.00000	.99999
23	12	64	108.3939	.00000	.99999	25	8	66	119.3939	.00000	.99999
38	1	60	108.4167	.00000	.99999	19	13	67	119.6258	.00000	.99999
18	16	65	108.6818	.00000	.99999	33	2	64	120.2727	.00000	.99999
35	4	62	109.0909	.00000	.99999	20	12	67	120.4394	.00000	.99999
19	15	65	109.0985	.00000	.99999	26	7	66	120.5985	.00000	.99999
36	4	61	109.5000	.00000	.99999	36	0	63	120.6818	.00000	.99999
30	6	63	109.5000	.00000	.99999	30	4	65	120.6818	.00000	.99999
26	9	64	109.5076	.00000	.99999	21	11	67	121.1591	.00000	.99999
29	14	65	109.6212	.00000	.99999	27	6	66	121.9091	.00000	.99999
21	13	65	110.2500	.00000	.99999	22	10	67	121.9848	.00000	.99999
27	8	64	110.1273	.00000	.99999	34	1	64	122.2348	.00000	.99999
39	0	60	110.1273	.00000	.99999	31	3	65	122.3712	.00000	.99999
34	3	62	110.4621	.00000	.99999	23	9	67	122.9167	.00000	.99999
22	12	65	110.9848	.00000	.99999	28	5	66	123.3258	.00000	.99999
31	5	63	111.0985	.00000	.99999	15	16	68	123.8182	.00000	.99999
37	1	61	111.6439	.00000	.99999	24	8	67	123.9545	.00000	.99999
23	11	65	111.8258	.00000	.99999	16	15	68	124.0530	.00000	.99999
28	7	64	112.0530	.00000	.99999	32	2	65	124.1667	.00000	.99999
20	16	65	112.7727	.00000	.99999	35	0	64	124.5030	.00000	.99999
32	4	63	112.8030	.00000	.99999	17	14	68	124.5939	.00000	.99999
35	2	62	112.9394	.00000	.99999	18	13	68	124.6099	.00000	.99999
13	16	66	113.1818	.00000	.99999	29	4	66	124.8485	.00000	.99999
18	17	66	113.3258	.00000	.99999	25	7	67	125.0985	.00000	.99999
29	6	64	113.4848	.00000	.99999	19	12	68	125.3939	.00000	.99999
17	16	66	113.5758	.00000	.99999	20	11	68	126.0530	.00000	.99999
25	9	65	113.8258	.00000	.99999	33	1	65	126.0682	.00000	.99999
38	0	61	113.8939	.00000	.99999	26	6	67	126.3485	.00000	.99999
19	15	66	113.9318	.00000	.99999	30	3	66	126.4773	.00000	.99999
19	14	66	114.3939	.00000	.99999	21	10	68	126.8182	.00000	.99999
33	3	63	114.6136	.00000	.99999	22	9	68	127.6894	.00000	.99999
20	13	66	114.9621	.00000	.99999	27	5	67	127.7045	.00000	.99999
25	8	65	114.9848	.00000	.99999	34	0	65	128.0758	.00000	.99999
36	1	62	115.0227	.00000	.99999	31	2	66	128.2121	.00000	.99999
30	5	64	115.0227	.00000	.99999	23	8	68	128.6667	.00000	.99999
12	16	65	115.0364	.00000	.99999	28	4	67	129.1667	.00000	.99999
27	7	65	116.2500	.00000	.99999	15	15	69	129.3409	.00000	.99999
42	11	66	116.4167	.00000	.99999	16	14	69	129.6212	.00000	.99999
34	2	63	116.5303	.00000	.99999	24	7	68	129.7500	.00000	.99999
31	4	64	116.6667	.00000	.99999	17	13	69	130.0076	.00000	.99999
37	0	62	117.2121	.00000	.99999	32	1	66	130.0530	.00000	.99999
25	10	66	117.3030	.00000	.99999	18	12	69	130.5000	.00000	.99999

(25)

TABLE B

U	V	W	X2	P(A)	CUM P(B)	U	V	W	X2	P(A)	CUM P(B)
29	5	67	130.7348	.00000	.99999	24	4	71	147.9545	.00000	.99999
25	6	68	130.9394	.00000	.99999	18	9	72	148.2955	.00000	.99999
19	11	69	131.0985	.00000	.99999	19	8	72	149.0303	.00000	.99999
20	10	69	131.8030	.00000	.99999	29	0	70	149.2121	.00000	.99999
33	0	66	132.0000	.00000	.99999	25	3	71	149.2403	.00000	.99999
26	5	68	132.4348	.00000	.99999	20	7	72	149.8712	.00000	.99999
30	2	67	132.4091	.00000	.99999	26	2	71	150.7121	.00000	.99999
21	9	69	132.8136	.00000	.99999	21	6	72	150.8182	.00000	.99999
22	8	69	133.5303	.00000	.99999	22	5	72	151.8712	.00000	.99999
27	4	68	133.6364	.00000	.99999	27	1	71	152.2500	.00000	.99999
31	1	67	134.1894	.00000	.99999	15	11	73	152.7955	.00000	.99999
23	7	69	134.5530	.00000	.99999	23	4	72	153.0303	.00000	.99999
15	14	70	135.0000	.00000	.99999	16	10	73	153.2576	.00000	.99999
28	3	68	135.1439	.00000	.99999	17	9	73	153.8258	.00000	.99999
16	13	70	135.3258	.00000	.99999	28	0	71	153.8939	.00000	.99999
24	6	69	135.6818	.00000	.99999	24	3	72	154.2955	.00000	.99999
17	12	70	135.7576	.00000	.99999	18	4	73	154.5800	.00000	.99999
32	0	67	136.0758	.00000	.99999	19	7	73	155.2803	.00000	.99999
18	11	70	136.2955	.00000	.99999	25	2	72	155.6667	.00000	.99999
29	2	68	136.7576	.00000	.99999	20	5	73	156.1667	.00000	.99999
25	5	69	136.9167	.00000	.99999	26	1	72	157.1439	.00000	.99999
19	10	70	136.9394	.00000	.99999	21	5	73	157.1591	.00000	.99999
20	9	70	137.6894	.00000	.99999	22	4	73	158.2576	.00000	.99999
26	4	69	138.2576	.00000	.99999	27	0	72	158.7576	.00000	.99999
30	1	68	138.4773	.00000	.99999	15	10	74	159.0000	.00000	.99999
21	8	70	138.5455	.00000	.99999	23	3	73	159.4621	.00000	.99999
22	7	70	139.5076	.00000	.99999	16	9	74	159.5076	.00000	.99999
27	3	69	139.7045	.00000	.99999	17	8	74	160.1212	.00000	.99999
31	0	68	140.3630	.00000	.99999	24	2	75	160.7727	.00000	.99999
23	6	70	140.5758	.00000	.99999	18	7	74	160.8409	.00000	.99999
15	13	71	140.7955	.00000	.99999	19	6	74	161.6667	.00000	.99999
16	12	71	141.1667	.00000	.99999	25	1	75	162.1894	.00000	.99999
28	2	69	141.2576	.00000	.99999	20	5	74	162.5985	.00000	.99999
17	11	71	141.6439	.00000	.99999	21	4	74	163.6364	.00000	.99999
24	5	70	141.7500	.00000	.99999	26	0	73	163.7121	.00000	.99999
18	10	71	142.2273	.00000	.99999	22	3	74	164.7803	.00000	.99999
29	1	69	142.9167	.00000	.99999	15	9	75	165.3409	.00000	.99999
19	9	71	142.9167	.00000	.99999	16	8	75	165.8939	.00000	.99999
25	4	70	143.0303	.00000	.99999	23	2	74	166.0303	.00000	.99999
20	8	71	143.7121	.00000	.99999	17	7	75	166.5530	.00000	.99999
26	3	70	144.4167	.00000	.99999	18	5	75	167.3182	.00000	.99999
21	7	71	144.6136	.00000	.99999	24	1	74	167.3864	.00000	.99999
30	0	69	144.8818	.00000	.99999	19	5	75	168.1894	.00000	.99999
22	6	71	145.6212	.00000	.99999	25	3	74	168.8485	.00000	.99999
27	2	72	145.9091	.00000	.99999	26	4	75	169.1667	.00000	.99999
15	12	72	146.7273	.00000	.99999	21	3	75	170.2500	.00000	.99999
25	5	71	146.7348	.00000	.99999	22	2	75	171.4394	.00000	.99999
16	11	72	147.1439	.00000	.99999	15	8	76	171.8182	.00000	.99999
28	1	70	147.5076	.00000	.99999	16	7	76	172.4167	.00000	.99999
17	10	72	147.6667	.00000	.99999	23	1	75	172.7348	.00000	.99999

(26)

TABLE B

CHI SQUARE - P(1/3), P(1/4/9), P(2/2/9) N=99

U	V	W	X2	P(A)	CUM P(B)
17	6	76	173.1242	.00000	.99999
14	5	76	173.9318	.00000	.99999
24	0	75	174.1304	.00000	.99999
19	4	76	174.8485	.00000	.99999
20	3	76	175.6712	.00000	.99999
21	2	76	177.0000	.00000	.99999
22	1	76	178.2348	.00000	.99999
15	7	77	178.4318	.00000	.99999
13	6	77	179.0758	.00000	.99999
23	0	76	179.5758	.00000	.99999
15	7	77	179.8258	.00000	.99999
18	4	77	180.6818	.00000	.99999
3	7	77	181.6439	.00000	.99999
23	2	77	182.7121	.00000	.99999
21	1	77	183.8864	.00000	.99999
22	0	75	185.1867	.00000	.99999
3	6	76	183.1818	.00000	.99999
15	5	78	183.8712	.00000	.99999
17	7	78	185.6667	.00000	.99999
2	3	78	187.5682	.00000	.99999
3	2	78	188.4578	.00000	.99999
20	1	78	189.6894	.00000	.99999
21	0	76	190.9091	.00000	.99999
13	5	79	192.0682	.00000	.99999
15	4	79	192.8030	.00000	.99999
3	7	79	193.6439	.00000	.99999
13	2	79	194.5909	.00000	.99999
1	7	79	195.6439	.00000	.99999
20	1	79	196.8030	.00000	.99999
3	8	79	199.0949	.00000	.99999
15	3	79	199.8712	.00000	.99999
17	1	80	200.7576	.00000	.99999
18	0	80	201.7450	.00000	.99999
19	8	80	202.8485	.00000	.99999
3	5	81	206.2500	.00000	.99999
15	2	81	207.7758	.00000	.99999
1	7	81	208.6818	.00000	.99999
3	8	81	209.8435	.00000	.99999
13	2	82	213.5935	.00000	.99999
15	1	82	214.4167	.00000	.99999
3	8	82	215.3939	.00000	.99999
13	1	83	220.9773	.00000	.99999
15	0	83	221.8939	.00000	.99999
3	8	84	228.5455	.00000	.99999

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TABLE C

CHI SQUARE = P.11/33, P.14/29, P.22/29 N=99

U	V	W	X2	PIA3 CUM P(C)	U	V	W	X2	PIA3 CUM P(C)
15 52 33	17.8939	.00000	.99967		15 16 68	125.8182	.00000	.99999	
15 52 34	17.8939	.00000	.99967		15 17 67	118.4318	.00000	.99999	
15 53 31	15.8939	.00000	.99978		15 18 66	113.1818	.00000	.99999	
15 53 32	15.8939	.00000	.99978		15 19 65	108.0682	.00000	.99999	
15 56 29	15.4394	.00000	.99973		15 20 64	103.0929	.00000	.99999	
15 57 28	15.4394	.00000	.99973		15 21 63	98.2500	.00000	.99999	
15 58 27	15.4394	.00000	.99973		15 22 62	93.5455	.00000	.99999	
15 59 26	15.4394	.00000	.99973		15 23 61	88.9773	.00000	.99999	
15 60 25	17.1667	.00000	.99982		15 24 60	84.5455	.00000	.99999	
15 61 24	17.1667	.00000	.99982		15 25 59	80.2500	.00000	.99999	
15 62 23	18.3689	.00000	.99989		15 26 58	76.0929	.00000	.99999	
15 63 22	19.1639	.00000	.99993		15 27 57	72.0682	.00000	.99999	
15 64 21	20.0704	.00000	.99997		15 28 56	68.1818	.00000	.99999	
15 65 20	21.1639	.00000	.99997		15 29 55	64.5318	.00000	.99999	
15 66 19	22.3465	.00000	.99998		15 30 54	61.0282	.00000	.99999	
15 67 18	23.6894	.00000	.99998		15 31 53	57.6667	.00000	.99999	
15 68 17	25.1667	.00000	.99999		15 32 52	54.5000	.00000	.99999	
15 69 16	26.7823	.00000	.99999		15 33 51	51.5238	.00000	.99999	
15 70 15	28.5303	.00000	.99999		15 34 50	48.7273	.00000	.99999	
15 71 14	30.4167	.00000	.99999		15 35 49	46.1955	.00000	.99999	
15 72 13	32.4394	.00000	.99999		15 36 48	43.8000	.00000	.99999	
15 73 12	34.5985	.00000	.99999		15 37 47	41.5409	.00000	.99999	
15 74 11	36.8939	.00000	.99999		15 38 46	39.4182	.00000	.99999	
15 75 10	39.3258	.00000	.99999		15 39 45	37.4318	.00000	.99999	
15 76 9	41.8939	.00000	.99999		15 40 44	35.5818	.00000	.99999	
15 77 8	44.5985	.00000	.99999		15 41 43	33.8682	.00000	.99999	
15 78 7	47.4394	.00000	.99999		15 42 42	32.2829	.00000	.99999	
15 79 6	50.4167	.00000	.99999		15 43 41	30.8182	.00000	.99999	
15 80 5	53.5303	.00000	.99999		15 44 40	29.4555	.00000	.99999	
15 81 4	56.7803	.00000	.99999		15 45 39	28.1773	.00000	.99999	
15 82 3	60.1667	.00000	.99999		15 46 38	27.0000	.00000	.99999	
15 83 2	63.6894	.00000	.99999		15 47 37	25.9091	.00000	.99999	
15 84 1	67.3685	.00000	.99999		15 48 36	24.8909	.00000	.99999	
15 85 0	71.1639	.00000	.99999		15 49 35	23.9362	.00000	.99999	
15 86 0	75.0704	.00000	.99999		15 50 34	23.0362	.00000	.99999	
15 87 0	79.0929	.00000	.99999		15 51 33	22.1818	.00000	.99999	
15 88 0	83.2500	.00000	.99999		15 52 32	21.3682	.00000	.99999	
15 89 0	87.5455	.00000	.99999		15 53 31	20.5909	.00000	.99999	
15 90 0	91.9773	.00000	.99999		15 54 30	19.8455	.00000	.99999	
15 91 0	96.5455	.00000	.99999		15 55 29	19.1273	.00000	.99999	
15 92 0	101.2500	.00000	.99999		15 56 28	18.4318	.00000	.99999	
15 93 0	106.0929	.00000	.99999		15 57 27	17.7555	.00000	.99999	
15 94 0	111.0682	.00000	.99999		15 58 26	17.0955	.00000	.99999	
15 95 0	116.1818	.00000	.99999		15 59 25	16.4500	.00000	.99999	
15 96 0	121.4318	.00000	.99999		15 60 24	15.8182	.00000	.99999	
15 97 0	126.8182	.00000	.99999		15 61 23	15.2000	.00000	.99999	
15 98 0	132.3182	.00000	.99999		15 62 22	14.5909	.00000	.99999	
15 99 0	137.9362	.00000	.99999		15 63 21	14.0000	.00000	.99999	
15 100 0	143.6667	.00000	.99999		15 64 20	13.4273	.00000	.99999	
15 101 0	149.5000	.00000	.99999		15 65 19	12.8727	.00000	.99999	

(1)

TABLE C

U	V	W	X2	PIA3 CUM P(C)	U	V	W	X2	PIA3 CUM P(C)
16 00 17	21.8955	.00000	.99997		16 31 52	53.5076	.00000	.99999	
16 01 16	22.9773	.00000	.99998		16 32 51	50.2576	.00000	.99999	
16 02 15	24.5455	.00000	.99999		16 33 50	47.1639	.00000	.99999	
16 03 14	26.2500	.00000	.99999		16 34 49	44.1667	.00000	.99999	
16 04 13	28.0929	.00000	.99999		16 35 48	41.2500	.00000	.99999	
16 05 12	30.0682	.00000	.99999		16 36 47	38.4212	.00000	.99999	
16 06 11	32.1818	.00000	.99999		16 37 46	35.6730	.00000	.99999	
16 07 10	34.4318	.00000	.99999		16 38 45	33.0012	.00000	.99999	
16 08 9	36.8182	.00000	.99999		16 39 44	30.3958	.00000	.99999	
16 09 8	39.3409	.00000	.99999		16 40 43	27.9467	.00000	.99999	
16 10 7	42.0000	.00000	.99999		16 41 42	25.6439	.00000	.99999	
16 11 6	44.7955	.00000	.99999		16 42 41	23.4776	.00000	.99999	
16 12 5	47.7273	.00000	.99999		16 43 40	21.4394	.00000	.99999	
16 13 4	50.7955	.00000	.99999		16 44 39	19.5200	.00000	.99999	
16 14 3	53.9800	.00000	.99999		16 45 38	17.7167	.00000	.99999	
16 15 2	57.2829	.00000	.99999		16 46 37	16.0182	.00000	.99999	
16 16 1	60.7000	.00000	.99999		16 47 36	14.4212	.00000	.99999	
16 17 0	64.2318	.00000	.99999		16 48 35	12.9276	.00000	.99999	
16 18 0	67.8682	.00000	.99999		16 49 34	11.5276	.00000	.99999	
16 19 0	71.6091	.00000	.99999		16 50 33	10.2182	.00000	.99999	
16 20 0	75.4555	.00000	.99999		16 51 32	8.9955	.00000	.99999	
16 21 0	79.4000	.00000	.99999		16 52 31	7.8545	.00000	.99999	
16 22 0	83.4455	.00000	.99999		16 53 30	6.7909	.00000	.99999	
16 23 0	87.5909	.00000	.99999		16 54 29	5.8000	.00000	.99999	
16 24 0	91.8362	.00000	.99999		16 55 28	4.8773	.00000	.99999	
16 25 0	96.1818	.00000	.99999		16 56 27	4.0182	.00000	.99999	
16 26 0	100.6273	.00000	.99999		16 57 26	3.2167	.00000	.99999	
16 27 0	105.1727	.00000	.99999		16 58 25	2.4676	.00000	.99999	
16 28 0	109.8182	.00000	.99999		16 59 24	1.7658	.00000	.99999	
16 29 0	114.5636	.00000	.99999		16 60 23	1.1058	.00000	.99999	
16 30 0	119.4091	.00000	.99999		16 61 22	.4812	.00000	.99999	
16 31 0	124.3545	.00000	.99999		16 62 21	.0000	.00000	.99999	
16 32 0	129.4000	.00000	.99999		16 63 20	.0000	.00000	.99999	
16 33 0	134.5455	.00000	.99999		16 64 19	.0000	.00000	.99999	
16 34 0	139.7909	.00000	.99999		16 65 18	.0000	.00000	.99999	
16 35 0	145.1364	.00000	.99999		16 66 17	.0000	.00000	.99999	
16 36 0	150.5818	.00000	.99999		16 67 16	.0000	.00000	.99999	
16 37 0	156.1273	.00000	.99999		16 68 15	.0000	.00000	.99999	
16 38 0	161.7727	.00000	.99999		16 69 14	.0000	.00000	.99999	
16 39 0	167.5182	.00000	.99999		16 70 13	.0000	.00000	.99999	
16 40 0	173.3636	.00000	.99999		16 71 12	.0000	.00000	.99999	
16 41 0	179.3091	.00000	.99999		16 72 11	.0000	.00000	.99999	
16 42 0	185.3545	.00000	.99999		16 73 10	.0000	.00000	.99999	
16 43 0	191.5000	.00000	.99999		16 74 9	.0000	.00000	.99999	
16 44 0	197.7455	.00000	.99999		16 75 8	.0000	.00000	.99999	
16 45 0	204.0909	.00000	.99999		16 76 7	.0000	.00000	.99999	
16 46 0	210.5364	.00000	.99999		16 77 6	.0000	.00000	.99999	
16 47 0	217.0818	.00000	.99999		16 78 5	.0000	.00000	.99999	
16 48 0	223.7273	.00000	.99999		16 79 4	.0000	.00000	.99999	
16 49 0	230.4727	.00000	.99999		16 80 3	.0000	.00000	.99999	
16 50 0	237.3182	.00000	.99999						

(2)

TABLE C

CHI SQUARE = P.11/33, P.14/29, P.22/29 N=99

U	V	W	X2	PIA3 CUM P(C)	U	V	W	X2	PIA3 CUM P(C)
15 81 2	58.0530	.00000	.99999		17 47 35	15.6439	.00000	.99961	
15 82 1	61.6212	.00000	.99999		17 48 34	14.6667	.00000	.99930	
15 83 0	65.3258	.00000	.99999		17 49 33	13.8258	.00000	.99900	
15 84 0	69.1639	.00000	.99999		17 50 32	13.1212	.00000	.99869	
15 85 0	73.0365	.00000	.99999		17 51 31	12.5530	.00000	.99838	
15 86 0	76.9439	.00000	.99999		17 52 30	12.1212	.00000	.99807	
15 87 0	80.8867	.00000	.99999		17 53 29	11.7273	.00000	.99776	
15 88 0	84.8639	.00000	.99999		17 54 28	11.3667	.00000	.99745	
15 89 0	88.8750	.00000	.99999		17 55 27	11.0365	.00000	.99714	
15 90 0	92.9182	.00000	.99999		17 56 26	10.7318	.00000	.99683	
15 91 0	96.9939	.00000	.99999		17 57 25	10.4500	.00000	.99652	
15 92 0	101.1000	.00000	.99999		17 58 24	10.1891	.00000	.99621	
15 93 0	105.2365	.00000	.99999		17 59 23	9.9473	.00000	.99590	
15 94 0	109.4030	.00000	.99999		17 60 22	9.7227	.00000	.99559	
15 95 0	113.5985	.00000	.99999		17 61 21	9.5142	.00000	.99528	
15 96 0	117.8225	.00000	.99999		17 62 20	9.3200	.00000	.99497	
15 97 0	122.0745	.00000	.99999		17 63 19	9.1391	.00000	.99466	
15 98 0	126.3540	.00000	.99999		17 64 18	8.9705	.00000	.99435	
15 99 0	130.6605	.00000	.99999		17 65 17	8.8141	.00000	.99404	
16 00 0	135.0035	.00000	.99999		17 66 16	8.6693	.00000	.99373	
16 01 0	139.3825	.00000	.99999		17 67 15	8.5357	.00000	.99342	
16 02 0	143.7970	.00000	.99999		17 68 14	8.4127	.00000	.99311	
16 03 0	148.2465	.00000	.99999		17 69 13	8.2999	.00000	.99280	
16 04 0	152.7305	.00000	.99999		17 70 12	8.1967	.00000	.99250	
16 05 0	157.2485	.00000	.99999		17 71 11	8.1028	.00000	.99219	
16 06 0	161.7999	.00000	.99999		17 72 10	8.0176	.00000	.99188	
16 07 0	166.3842	.00000	.99999		17 73 09	7.9407	.00000	.99157	
16 08 0	170.9999	.00000	.99999		17 74 08	7.8712	.00000	.99126	
16 09 0	175.6467	.00000	.99999		17 75 07	7.8085	.00000	.99095	
16 10 0	180.3240	.00000	.99999		17 76 06	7.7520	.00000	.99064	
16 11 0	185.0315	.00000	.99999		17 77 05	7.7014	.00000	.99033	
16 12 0	189.7685	.00000	.99999		17 78 04	7.6573	.00000	.99002	
16 13 0	194.5345	.00000	.99999		17 79 03	7.6192	.00000	.98971	
16 14 0	199.3289	.00000	.99999		17 80 02	7.5867	.00000	.98940	
16 15 0	204.1510	.00000	.99999		17 81 01	7.5594	.00000	.98909	
16 16 0	209.0005	.00000	.99999		17 82 00	7.5367	.00000	.98878	
16 17 0	213.8769	.00000	.99999		17 83 00	7.5181	.00000	.98847	
16 18 0	218.7796	.00000	.99999		17 84 00	7.5031	.00000	.98816	
16 19 0	223.7080	.00000	.99999		17 85 00	7.4916	.00000	.98785	
16 20 0	228.6615	.00000	.99999		17 86 00	7.4834	.00000	.98754	
16 21 0	233.6405	.00000	.99999		17 87 00	7.4784	.00000	.98723	
16 22 0	238.6445	.00000	.99999		17 88 00	7.4764	.00000	.98692	
16 23 0	243.6730	.00000	.99999		17 89 00	7.4772	.00000	.98661	
16 24 0	248.7255	.00000	.99999		17 90 00	7.4807	.00000	.98630	
16 25 0	253.8015	.00000	.99999		17 91 00	7.4867	.00000	.98599	
16 26 0	258.8995	.00000	.99999		17 92 00	7.4950	.00000	.98568	
16 27 0	264.0190	.00000	.99999		17 93 00	7.5055	.00000	.98537	
16 28 0	269.1595	.00000	.99999		17 94 00	7.5181	.00000	.98506	
16 29 0	274.3205	.00000	.99999		17 95 00	7.5327	.00000	.98475	
16 30 0	279.4995	.00000	.99999		17 96 00	7.5493	.00000	.98444	
16 31 0	284.6950	.00000	.99999		17 97 00	7.5677	.00000	.98413	
16 32 0	289.9065	.00000	.99999		17 98 00	7.5878	.00000	.98382	
16 33 0	295.1335	.00000	.99999		17 99 00	7.6095	.00000	.98351	
16 34 0	299.3755	.00000	.99999		18 00 00	7.6327	.00000	.98320	
16 35 0	303.6320	.00000	.99999		18 01 00	7.6574	.00000	.98289	
16 36 0	307.9025	.00000	.99999		18 02 00	7.6835	.00000	.98258	
16 37 0	312.1865	.00000	.99999		18 03 00	7.7109	.00000	.98227	
16 38 0	316.4835	.00000	.99999		18 04 00	7.7396	.00000	.98196	
16 39 0	320.7930	.00000	.99999		18 05 00	7.7695	.00000	.98165	
16 40 0	325.1145	.00000	.99999		18 06 00	7.8006	.00000	.98134	
16 41 0	329.4475	.00000	.99999		18 07 00	7.8328	.00000	.98103	
16 42 0	333.7915	.00000	.99999		18 08 00	7.8661	.00000	.98072	
16 43 0	338.1460	.00000	.99999		18 09 00	7.9005	.00000	.98041	
16 44 0	342.5105	.00000	.99999		18 10 00	7.9359	.00000	.98010	
16 45 0	346.8845	.00000	.99999		18 11 00	7.9723	.00000	.97979	
16 46 0	351.2675	.00000	.99999		18 12 00	8.0096	.00000	.97948	
16 47 0	355.6590	.00000	.99999		18 13 00	8.0478	.00000	.97917	
16 48 0	360.0585	.00000	.99999		18 14 00	8.0868	.00000	.97886	
16 49 0	364.4655	.00000	.99999		18 15 00	8.1266	.00000	.97855	
16 50 0	368.8795	.00000	.99999		18 16 00	8.1671	.00000	.97824	
16 51 0	373.2999	.00000	.99999		18 17 00	8.2083	.00000	.97793	
16 52 0	377.7265	.00000	.99999		18 18 00	8.2501	.00000	.97762	
16 53 0	382.1589	.00000	.99999		18 19 00	8.2925	.00000	.97731	
16 54 0	386.5965	.00000	.99999		18 20 00	8.3355	.00000	.97700	
16 55 0	391.0390	.00000	.99999		18 21 00	8.3791	.00000	.97669	
16 56 0	395.4859	.00000	.99999		18 22 00	8.4233	.00000	.97638	
16 57 0	399.9367	.00000	.99999		18 23 00	8.4681	.00000	.97607	
16 58 0	404.3910	.00000	.99999		18 24 00	8.5134	.00000	.97576	
16 59 0	408.8485	.00000	.99999		18 25 00	8.5592	.00000	.97545	
16 60 0	413.3095	.00000	.99999		18 26 00	8.6055	.00000	.97514	
16 61 0	417.7735	.00000	.99999		18 27 00	8.6523	.00000	.97483	
16 62 0	422.2400	.00000	.99999		18 28 00	8.6995	.00000	.97452	
16 63 0	426.7095	.00000	.99999		18 29 00	8.7471	.00000	.97421	
16 64 0	431.1815	.00000	.99999		18 30 00	8.7951	.00000	.97390	
16 65 0	435.6555	.00000	.99999		18 31 00	8.8435	.00000	.97359	
16 66 0	440.1310	.00000	.99999		18 32 00	8.8923	.00000	.97328	
16 67 0	444.6085	.00000	.99999		18 33 00	8.9415	.00000	.97297	
16 68 0	449.0875	.00000	.99999		18 34 00	8.9911	.00000	.97266	
16 69 0	453.5685	.00000	.99999		18 35 00	9.0411	.00000	.97235	
16 70 0	458.0509	.00000	.99999		18 36 00	9.0915	.00000	.97204	
16 71 0	462.5345	.00000	.99999		18 37 00	9.1423	.00000	.97173	
16 72 0	467.0190	.00000	.99999		18 38 00	9.1935	.00000	.97142	
16 73 0	471.5045	.00000	.99999		18 39 00	9.2450	.00000	.97111	
16 74 0	475.9905	.00000	.99999		18 40 00	9.2968	.00000	.97080	
16 75 0	480.4775	.00000	.99999		18 41 00	9.3490	.00000	.97049	
16 76 0	484.9650	.00000	.99999		18 42 00	9.4015	.00000	.97018	
16 77 0	489.4535	.00000	.99999		18 43 00	9.4543	.00000	.96987	
16 78 0	493.9425	.00000	.99999		18 44 00	9.5074	.00000	.96956	
16 79 0	498.4325	.00000	.99999		18 45 00	9.5608	.00000	.96925	
16 80 0	502.9230	.00000	.99999		18 46 00	9.6145	.00000	.96894	
16 81 0	507.4135	.00000	.99999		18 47 00	9.6685	.00000	.96863	
16 82 0	511.9045	.00000	.99999		18 48 00	9.7228	.00000	.96832	
16 83 0	516.3955	.00000	.99999		18 49 00	9.7774	.00000	.96801	
16 84 0	520.8865	.00000	.99999		18 50 00	9.8323	.00000	.96770	
16 85 0	525.3775	.00000	.99999		18 51 00	9.8874	.00000	.96739	
16 86 0	529.8685	.00000	.99999		18 52 00	9.9428	.00000	.96708	
16 87 0	534.3590	.00000	.99999		18 53 00	9.9984	.00000	.96677	
16 88 0	538.8495	.00000	.99999		18 54 00	10.0543	.00000	.96646	
16 89 0	543.3400	.00000	.99999		18 55 00	10.1104	.00000	.96615	
16 90 0	547.8305	.00000	.99999		18 56 00	10.1668	.00000	.96584	
16 91 0	552.3210	.00000	.99999		18 57 00	10.2234	.00000	.96553	
16 92 0	556.8115	.00000	.99999		18 58 00	10.2802	.00000	.96522	
16 93 0	561.3020	.00000	.99999		18 59 00	10.3373	.00000	.96491	
16 94 0	565.7925	.00000	.99999		18 60 00	10.3946	.00000	.96460	
16 95 0	570.2830	.00000	.99999		18 61 00	10.4521	.00000	.96429	
16 96 0	574.7735	.00000	.99999		18 62 00	10.5098	.00000	.96398	
16 97 0	579.2640	.00000	.99999		18 63 00	10.5677	.00000	.96367	
16 98 0	583.7545	.00000	.99999		18 64 00	10.6258	.00000	.96336	
16 99 0	588.2450	.00000	.99999		18 65 00	10.6841	.00000	.96305	
16 00 0	592.7355	.00000	.99999		18 66 00	10.7426	.00000	.96274	
16 01 0	597.2260	.00000	.99999		18 67 00	10.8013	.00000	.96243	
16 02 0	601.7165	.00000	.99999		18 68 00	10.860			



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TABLE C

CHE SQUARE - P011/31, P114/91, P212/91 N=99

U	V	W	X2	P(1) CUM P(1)	U	V	W	X2	P(1) CUM P(1)
19 32 98	39.9399	.00000	.99999		20 1 78	189.6899	.00000	.99999	
19 33 97	37.9985	.00000	.99999		20 2 77	182.7121	.00000	.99999	
19 34 96	35.9939	.00000	.99999		20 3 76	175.8712	.00000	.99999	
19 35 95	31.9258	.00000	.99999		20 4 75	169.1667	.00000	.99999	
19 36 94	29.9939	.00000	.99999		20 5 74	162.5985	.00000	.99999	
19 37 93	27.9985	.00000	.99999		20 6 73	156.1667	.00000	.99999	
19 38 92	25.9394	.00000	.99999		20 7 72	149.8712	.00000	.99999	
19 39 91	22.9167	.00000	.99999		20 8 71	143.7121	.00000	.99999	
19 40 90	21.9353	.00000	.99999		20 9 70	137.6899	.00000	.99999	
19 41 89	19.9985	.00000	.99999		20 10 69	131.8030	.00000	.99999	
19 42 88	17.9985	.00000	.99999		20 11 68	126.0530	.00000	.99999	
19 43 87	16.1899	.00000	.99999		20 12 67	120.4394	.00000	.99999	
19 44 86	14.6885	.00000	.99999		20 13 66	114.9621	.00000	.99999	
19 45 85	13.4639	.00000	.99999		20 14 65	109.6212	.00000	.99999	
19 46 84	12.5758	.00000	.99999		20 15 64	104.4167	.00000	.99999	
19 47 83	11.6439	.00000	.99999		20 16 63	99.3485	.00000	.99999	
19 48 82	10.6885	.00000	.99999		20 17 62	94.4167	.00000	.99999	
19 49 81	10.1899	.00000	.99999		20 18 61	89.6212	.00000	.99999	
19 50 80	9.6667	.00000	.99999		20 19 60	84.9621	.00000	.99999	
19 51 79	9.2803	.00000	.99999		20 20 59	80.4394	.00000	.99999	
19 52 78	8.9303	.00000	.99999		20 21 58	76.0530	.00000	.99999	
19 53 77	8.6167	.00000	.99999		20 22 57	71.8030	.00000	.99999	
19 54 76	8.3399	.00000	.99999		20 23 56	67.6899	.00000	.99999	
19 55 75	8.0985	.00000	.99999		20 24 55	63.7121	.00000	.99999	
19 56 74	7.8939	.00000	.99999		20 25 54	59.8712	.00000	.99999	
19 57 73	7.7258	.00000	.99999		20 26 53	56.1667	.00000	.99999	
19 58 72	7.5939	.00000	.99999		20 27 52	52.5985	.00000	.99999	
19 59 71	7.4985	.00000	.99999		20 28 51	49.1667	.00000	.99999	
19 60 70	7.4399	.00000	.99999		20 29 50	45.8712	.00000	.99999	
19 61 69	7.4167	.00000	.99999		20 30 49	42.7121	.00000	.99999	
19 62 68	7.4303	.00000	.99999		20 31 48	39.6899	.00000	.99999	
19 63 67	7.4803	.00000	.99999		20 32 47	36.8030	.00000	.99999	
19 64 66	7.5667	.00000	.99999		20 33 46	34.0530	.00000	.99999	
19 65 65	7.6899	.00000	.99999		20 34 45	31.4394	.00000	.99999	
19 66 64	7.8485	.00000	.99999		20 35 44	28.9621	.00000	.99999	
19 67 63	8.0439	.00000	.99999		20 36 43	26.6212	.00000	.99999	
19 68 62	8.2758	.00000	.99999		20 37 42	24.4167	.00000	.99999	
19 69 61	8.5439	.00000	.99999		20 38 41	22.3485	.00000	.99999	
19 70 60	8.8485	.00000	.99999		20 39 40	20.4167	.00000	.99999	
19 71 59	9.1899	.00000	.99999		20 40 39	18.6212	.00000	.99999	
19 72 58	9.5667	.00000	.99999		20 41 38	16.9621	.00000	.99999	
19 73 57	9.9803	.00000	.99999		20 42 37	15.4394	.00000	.99999	
19 74 56	10.4399	.00000	.99999		20 43 36	14.0530	.00000	.99999	
19 75 55	10.9367	.00000	.99999		20 44 35	12.8030	.00000	.99999	
19 76 54	11.4758	.00000	.99999		20 45 34	11.6899	.00000	.99999	
19 77 53	12.0667	.00000	.99999		20 46 33	10.7121	.00000	.99999	
19 78 52	12.7085	.00000	.99999		20 47 32	9.8712	.00000	.99999	
19 79 51	13.4085	.00000	.99999		20 48 31	9.1667	.00000	.99999	
19 80 50	14.1667	.00000	.99999		20 49 30	8.5985	.00000	.99999	
19 81 49	14.9899	.00000	.99999		20 50 29	8.1667	.00000	.99999	

(5)

TABLE C

U	V	W	X2	P(1) CUM P(1)	U	V	W	X2	P(1) CUM P(1)
20 51 28	7.8712	.00013	.98183		21 21 57	72.0667	.00000	.99999	
20 52 27	7.7121	.00014	.97987		21 22 56	67.9091	.00000	.99999	
20 53 26	7.6899	.00014	.97959		21 23 55	63.8864	.00000	.99999	
20 54 25	7.6830	.00014	.98068		21 24 54	60.0000	.00000	.99999	
20 55 24	7.6530	.00013	.98293		21 25 53	56.2530	.00000	.99999	
20 56 23	7.6399	.00011	.98545		21 26 52	52.6364	.00000	.99999	
20 57 22	7.6421	.00009	.98907		21 27 51	49.1591	.00000	.99999	
20 58 21	7.6621	.00007	.99280		21 28 50	45.8167	.00000	.99999	
20 59 20	7.69167	.00005	.99663		21 29 49	42.6136	.00000	.99999	
20 60 19	7.73167	.00003	.99956		21 30 48	39.5485	.00000	.99999	
20 61 18	7.78167	.00002	.99913		21 31 47	36.6136	.00000	.99999	
20 62 17	7.84212	.00001	.99902		21 32 46	33.8182	.00000	.99999	
20 63 16	7.91621	.00001	.99942		21 33 45	31.1591	.00000	.99999	
20 64 15	8.00399	.00000	.99973		21 34 44	28.6364	.00000	.99999	
20 65 14	8.10530	.00000	.99987		21 35 43	26.2530	.00000	.99999	
20 66 13	8.22399	.00000	.99994		21 36 42	24.0000	.00000	.99999	
20 67 12	8.36099	.00000	.99997		21 37 41	21.8864	.00000	.99999	
20 68 11	8.51712	.00000	.99999		21 38 40	19.9091	.00000	.99999	
20 69 10	8.69212	.00000	.99999		21 39 39	18.0667	.00000	.99999	
20 70 9	8.8867	.00000	.99999		21 40 38	16.3636	.00000	.99999	
20 71 8	9.1005	.00000	.99999		21 41 37	14.7985	.00000	.99999	
20 72 7	9.33667	.00000	.99999		21 42 36	13.3636	.00000	.99999	
20 73 6	9.59712	.00000	.99999		21 43 35	12.0667	.00000	.99999	
20 74 5	9.88167	.00000	.99999		21 44 34	10.9091	.00000	.99999	
20 75 4	10.19899	.00000	.99999		21 45 33	9.9864	.00000	.99999	
20 76 3	10.54830	.00000	.99999		21 46 32	9.2030	.00000	.99999	
20 77 2	10.93030	.00000	.99999		21 47 31	8.55000	.00000	.99999	
20 78 1	11.34399	.00000	.99999		21 48 30	8.0167	.00000	.99999	
20 79 0	11.79621	.00000	.99999		21 49 29	7.5991	.00000	.99999	
21 0 78	12.29991	.00000	.99999		21 50 28	7.2864	.00000	.99999	
21 1 77	12.84864	.00000	.99999		21 51 27	7.0000	.00000	.99999	
21 2 76	13.43660	.00000	.99999		21 52 26	6.7364	.00000	.99999	
21 3 75	14.06500	.00000	.99999		21 53 25	6.4936	.00000	.99999	
21 4 74	14.73664	.00000	.99999		21 54 24	6.2667	.00000	.99999	
21 5 73	15.4591	.00000	.99999		21 55 23	6.0545	.00000	.99999	
21 6 72	16.2336	.00000	.99999		21 56 22	5.8564	.00000	.99999	
21 7 71	17.06136	.00000	.99999		21 57 21	5.6721	.00000	.99999	
21 8 70	17.94303	.00000	.99999		21 58 20	5.5000	.00000	.99999	
21 9 69	18.88036	.00000	.99999		21 59 19	5.3399	.00000	.99999	
21 10 68	19.88364	.00000	.99999		21 60 18	5.1916	.00000	.99999	
21 11 67	20.95391	.00000	.99999		21 61 17	5.0545	.00000	.99999	
21 12 66	22.09364	.00000	.99999		21 62 16	4.9286	.00000	.99999	
21 13 65	23.30500	.00000	.99999		21 63 15	4.8136	.00000	.99999	
21 14 64	24.58864	.00000	.99999		21 64 14	4.7091	.00000	.99999	
21 15 63	25.94464	.00000	.99999		21 65 13	4.6167	.00000	.99999	
21 16 62	27.37391	.00000	.99999		21 66 12	4.5364	.00000	.99999	
21 17 61	28.87667	.00000	.99999		21 67 11	4.4667	.00000	.99999	
21 18 60	30.45364	.00000	.99999		21 68 10	4.4085	.00000	.99999	
21 19 59	32.10500	.00000	.99999		21 69 9	4.3600	.00000	.99999	
21 20 58	33.8364	.00000	.99999		21 70 8	4.3216	.00000	.99999	

(6)

TABLE C

CHE SQUARE - P011/31, P114/91, P212/91 N=99

U	V	W	X2	P(1) CUM P(1)	U	V	W	X2	P(1) CUM P(1)
21 71	57	31.1591	.00000	.99999	22 42	35	11.4394	.00004	.99961
21 72	56	33.8182	.00000	.99999	22 43	34	10.2348	.00007	.99923
21 73	55	36.6136	.00000	.99999	22 44	33	9.1667	.00011	.99917
21 74	54	39.5485	.00000	.99999	22 45	32	8.2368	.00015	.99810
21 75	53	42.6136	.00000	.99999	22 46	31	7.4399	.00021	.99667
21 76	52	45.8182	.00000	.99999	22 47	30	6.7576	.00027	.99492
21 77	51	49.1591	.00000	.99999	22 48	29	6.2076	.00034	.99290
21 78	50	52.6364	.00000	.99999	22 49	28	5.7812	.00040	.99062
21 79	49	56.2530	.00000	.99999	22 50	27	5.4621	.00045	.98805
21 80	48	60.0000	.00000	.99999	22 51	26	5.2076	.00048	.98510
21 81	47	63.8864	.00000	.99999	22 52	25	5.0000	.00049	.98171
21 82	46	67.9091	.00000	.99999	22 53	24	4.8399	.00049	.97796
21 83	45	72.0667	.00000	.99999	22 54	23	4.7167	.00048	.97385
21 84	44	76.3636	.00000	.99999	22 55	22	4.6286	.00046	.96938
21 85	43	80.8000	.00000	.99999	22 56	21	4.5714	.00044	.96492
21 86	42	85.3864	.00000	.99999	22 57	20	4.5357	.00042	.96048
21 87	41	90.1250	.00000	.99999	22 58	19	4.5100	.00040	.95604
21 88	40	95.0000	.00000	.99999	22 59	18	4.4843	.00038	.95160
21 89	39	100.0000	.00000	.99999	22 60	17	4.4586	.00036	.94716
21 90	38	105.1364	.00000	.99999	22 61	16	4.4329	.00034	.94272
21 91	37	110.4182	.00000	.99999	22 62	15	4.4071	.00032	.93828
21 92	36	115.8455	.00000	.99999	22 63	14	4.3814	.00030	.93384
21 93	35	121.4182	.00000	.99999	22 64	13	4.3557	.00028	.92940
21 94	34	127.1364	.00000	.99999	22 65	12	4.3300	.00026	.92496
21 95	33	133.0000	.00000	.99999	22 66	11	4.3043	.00024	.92052
21 96	32	139.0000	.00000	.99999	22 67	10	4.2786	.00022	.91608
21 97	31	145.1364	.00000	.99999	22 68	9	4.2529	.00020	.91164
21 98	30	151.4182	.00000	.99999	22 69	8	4.2271	.00018	.90720
21 99	29	157.8455	.00000	.99999	22 70	7	4.2014	.00016	.90276
22 00	28	164.4182	.00000	.99999	22 71	6	4.1757	.00014	.89832
22 01	27	171.1364	.00000	.99999	22 72	5	4.1500	.00012	.89388
22 02	26	178.0000	.00000	.99999	22 73	4	4.1243	.00010	.88944
22 03	25	185.0000	.00000	.99999	22 74	3	4.0986	.00008	.88499
22 04	24	192.1364	.00000	.99999	22 75	2	4.0729	.00006	.88055
22 05	23	199.4182	.00000	.99999	22 76	1	4.0471	.00004	.87611
22 06	22	206.8455	.00000	.99999	22 77	0	4.0214	.00002	.87167
22 07	21	214.4182	.00000	.99999	22 78	0	4.0000	.00000	.86723
22 08	20	222.1364	.00000	.99999	22 79	0	3.9786	.00000	.86279
22 09	19	230.0000	.00000	.99999	22 80	0	3.9571	.00000	.85835
22 10	18	238.0000	.00000	.99999	22 81	0	3.9357	.00000	.85391
22 11	17	246.1364	.00000	.99999	22 82	0	3.9143	.00000	.84947
22 12	16	254.4182	.00000	.99999	22 83	0	3.8929	.00000	.84503
22 13	15	262.8455	.00000	.99999	22 84	0	3.8714	.00000	.84059
22 14	14	271.4182	.00000	.99999	22 85	0	3.8500	.00000	.83615
22 15	13	280.1364	.00000	.99999	22 86	0	3.8286	.00000	.83171
22 16	12	289.0000	.00000	.99999	22 87	0	3.8071	.00000	.82727
22 17	11	298.0000	.00000	.99999	22 88	0	3.7857	.00000	.82283
22 18	10	307.1364	.00000	.99999	22 89	0	3.7643	.00000	.81839
22 19	9	316.4182	.00000	.99999	22 90	0	3.7429	.00000	.81395
22 20	8	325.8455	.00000	.99999	22 91	0	3.7214	.00000	.80951
22 21	7	335.4182	.00000	.99999	22 92	0	3.7000	.00000	.80507
22 22	6	345.1364	.00000	.99999	22 93	0	3.6786	.00000	.80063
22 23	5	355.0000	.00000	.99999	22 94	0	3.6571	.00000	.79619
22 24	4	365.0000	.00000	.99999	22 95	0	3.6357	.00000	.79175
22 25	3	375.1364	.00000	.99999	22 96	0	3.6143	.00000	.78731
22 26	2	385.4182	.00000	.99999	22 97	0	3.5929	.00000	.78287
22 27	1	395.8455	.00000	.99999	22 98	0	3.5714	.00000	.77843
22 28	0	406.4182	.00000	.99999	22 99	0	3.5500	.00000	.77399
22 29	0	417.1364	.00000	.99999	23 00	0	3.5286	.00000	.76955
22 30	0	428.0000	.00000	.99999	23 01	0	3.5071	.00000	.76511
22 31	0	439.0000	.00000	.99999	23 02	0	3.4857	.00000	.76067
22 32	0	450.1364	.00000	.99999	23 03	0	3.4643	.00000	.75623
22 33	0	461.4182	.00000	.99999	23 04	0	3.4429	.00000	.75179
22 34	0	472.8455	.00000	.99999	23 05	0	3.4214	.00000	.74735
22 35	0	484.4182	.00000	.99999	23 06	0	3.4000	.00000	.74291
22 36	0	496.1364	.00000	.99999	23 07	0	3.3786	.00000	.73847
22 37	0	508.0000	.00000	.99999	23 08	0	3.3571	.00000	.73403
22 38	0	520.0000	.00000	.99999	23 09	0	3.3357	.00000	.72959
22 39	0	532.1364	.00000	.99999	23 10	0	3.3143	.00000	.72515
22 40	0	544.4182	.00000	.99999	23 11	0	3.2929	.00000	.72071
22 41	0	556.8455	.00000	.99999	23 12	0	3.2714	.00000	.71627
22 42	0	569.4182	.00000	.99999	23 13	0	3.2500	.00000	.71183
22 43	0	582.1364	.00000	.99999	23 14	0	3.2286	.00000	.70739
22 44	0	595.0000	.00000	.99999	23 15	0	3.2071	.00000	.70295
22 45	0	608.0000	.00000	.99999	23 16	0	3.1857	.00000	.69851
22 46	0	621.1364	.00000	.99999	23 17	0	3.1643	.00000	.69407
22 47	0	634.4182	.00000	.99999	23 18	0	3.1429	.00000	.68963
22 48	0	647.8455	.00000	.99999	23 19	0	3.1214	.00000	.68519
22 49	0	661.4182	.00000	.99999	23 20	0	3.1000	.00000	.68075
22 50	0	675.1364	.00000	.99999	23 21	0	3.0786	.00000	.67631
22 51	0	689.0000	.00000	.99999	23 22	0	3.0571	.00000	.67187
22 52	0	703.0000	.00000	.99999	23 23	0	3.0357	.00000	.66743
22 53	0	717.1364	.00000	.99999	23 24	0	3.0143	.00000	.66299
22 54	0	731.4182	.00000	.99999	23 25	0	2.9929	.00000	.65855
22 55	0	745.8455	.00000	.99999	23 26	0	2.9714	.00000	.65411
22 56	0	760.4182	.00000	.99999	23 27	0	2.9500	.00000	.64967
22 57	0	775.1364	.00000	.99999	23 28	0	2.9286	.00000	.64523
22 58	0	790.0000	.00000	.99999	23 29	0	2.9071	.00000	.64079
22 59	0	805.0000	.00000	.99999	23 30	0	2.8857	.00000	.63635
22 60	0	820.1364	.00000	.99999	23 31	0	2.8643	.00000	.63191
22 61	0	835.4182	.00000	.99999	23 32	0	2.8429	.00000	.62747
22 62	0	850.8455	.00000	.99999	23 33	0	2.8214	.00000	.62303
22 63	0	866.4182	.00000	.99999	23 34	0	2.8000	.00000	.61859
22 64	0	882.1364	.00000	.99999	23 35	0	2.7786	.00000	.61415
22 65	0	898.0000	.00000	.99999	23 36	0	2.7571	.00000	.60971
22 66	0	914.0000	.00000	.99999	23 37	0	2.7357	.00000	.60527
22 67	0	930.1364	.00000	.99999	23 38	0	2.7143	.00000	.60083
22 68	0	946.4182	.00000	.99999	23 39	0	2.6929	.00000	.59639
22 69	0	962.8455	.00000	.99999	23 40	0	2.6714	.00000	.59195
22 70	0	979.4182	.00000	.99999	23 41	0	2.6500	.00000	.58751
22 71	0	996.1364	.00000	.99999	23 42	0	2.6286	.00000	.58307
22 72	0	1013.0000	.00000	.99999	23 43	0	2.6071	.00000	.57863
22 73	0	1030.0000	.00000	.99999	23 44	0	2.5857	.00000	.57419
22 74	0	1047.1364	.00000	.99999	23 45	0	2.5643	.00000	.56975
22 75	0	1064.4182	.00000	.99999	23 46	0	2.5429	.00000	.56531
22 76	0	1081.8455	.00000	.99999	23 47	0	2.5214	.00000	.56087
22 77	0	1100.0000	.00000	.99999	23 48	0	2.5000	.00000	.55643
22 78	0	1118.0000	.00000	.99999	23 49	0	2.4786	.00000	.55199
22 79	0	1136.1364	.00000	.99999	23 50	0	2.4571	.00000	.54755
22 80	0	1154.4182	.00000	.99999	23 51	0	2.4357	.00000	.54311
22 81	0	1172.8455	.00000	.99999	23 52	0	2.4143	.00000	.53867
22 82	0	1191.4182	.00000	.99999	23 53	0	2.3929	.00000	.53423
22 83	0	1210.1364	.00000	.99999	23 54	0	2.3714	.00000	.52979
22 84	0	1229.0000	.00000	.99999	23 55	0	2.3500	.00000	.52535
22 85	0	1248.0000	.00000	.99999	23 56	0	2.3286	.00000	.52091
22 86	0	1267.1364	.00000	.99999	23 57	0	2.3071	.00000	.51647
22 87	0	1286.4182	.00000	.99999	23 58	0	2.2857	.00000	.51203
22 88	0	1305.8455	.00000	.99999	23 59	0	2.2643	.00000	.50759
22 89	0	1325.4182	.00000	.99999	24 00	0	2.2429	.00000	.50315
22 90	0	1345.1364	.00000	.99999					
22 91	0	1365.0000	.00000	.99999					
22 92	0	1385.0000	.00000	.99999					
22 93	0	1405.1364	.00000	.99999					
22 94	0	1425.4182	.						



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TABLE C

ONE SQUARE - P(1/3), P(1/4), P(2/3), N=99

U	V	W	X2	P(1/3) CUM P(1/3)	U	V	W	X2	P(1/3) CUM P(1/3)
25 11 36	13.4445	.00000	.99995	.00000	25 11 63	103.0985	.00000	.99999	.99999
25 13 37	13.4500	.00000	.99995	.00000	25 12 62	97.9394	.00000	.99999	.99999
25 13 38	11.9318	.00000	.99976	.00000	25 13 61	92.9167	.00000	.99999	.99999
25 14 35	1.45416	.00000	.99927	.00000	25 14 60	88.9303	.00000	.99999	.99999
25 14 36	9.4445	.00000	.99953	.00000	25 15 59	83.2803	.00000	.99999	.99999
25 15 35	8.4445	.00000	.99923	.00000	25 15 58	78.6667	.00000	.99999	.99999
25 15 36	7.4445	.00000	.99776	.00000	25 17 57	74.1898	.00000	.99999	.99999
25 16 31	6.1364	.00000	.99476	.00000	25 18 56	69.8485	.00000	.99999	.99999
25 16 32	5.3664	.00000	.99358	.00000	25 19 55	65.6479	.00000	.99999	.99999
25 16 33	4.7727	.00000	.99434	.00000	25 20 54	61.5758	.00000	.99999	.99999
25 17 28	4.2955	.00000	.98845	.00000	25 21 53	57.6339	.00000	.99999	.99999
25 17 29	3.9545	.00000	.98665	.00000	25 22 52	53.8485	.00000	.99999	.99999
25 18 26	3.7500	.00000	.98435	.00000	25 23 51	50.1894	.00000	.99999	.99999
25 19 25	3.6618	.00000	.98357	.00000	25 24 50	46.6667	.00000	.99999	.99999
25 20 24	3.7500	.00000	.98710	.00000	25 25 49	43.2803	.00000	.99999	.99999
25 21 23	3.9545	.00000	.98636	.00000	25 26 48	40.0303	.00000	.99999	.99999
25 22 22	4.2955	.00000	.98548	.00000	25 27 47	36.9167	.00000	.99999	.99999
25 23 21	4.7727	.00000	.98555	.00000	25 28 46	33.9394	.00000	.99999	.99999
25 24 20	5.3664	.00000	.98239	.00000	25 29 45	31.0985	.00000	.99999	.99999
25 25 19	6.1364	.00000	.99532	.00000	25 30 44	28.3939	.00000	.99999	.99999
25 26 18	7.4445	.00000	.99746	.00000	25 31 43	25.8258	.00000	.99999	.99999
25 27 17	8.4445	.00000	.99826	.00000	25 32 42	23.3939	.00000	.99999	.99999
25 28 16	9.4445	.00000	.99740	.00000	25 33 41	21.0985	.00000	.99999	.99999
25 29 15	10.5000	.00000	.99500	.00000	25 34 40	18.9394	.00000	.99999	.99999
25 30 14	11.9318	.00000	.99765	.00000	25 35 39	16.9167	.00000	.99999	.99999
25 31 13	13.5000	.00000	.99887	.00000	25 36 38	15.0303	.00000	.99999	.99999
25 32 12	15.2845	.00000	.99952	.00000	25 37 37	13.2803	.00000	.99999	.99999
25 33 11	17.0000	.00000	.99984	.00000	25 38 36	11.6667	.00000	.99999	.99999
25 34 10	19.0227	.00000	.99992	.00000	25 39 35	10.1894	.00000	.99999	.99999
25 35 9	21.1364	.00000	.99997	.00000	25 40 34	8.8485	.00000	.99999	.99999
25 36 8	23.4445	.00000	.99999	.00000	25 41 33	7.6339	.00000	.99999	.99999
25 37 7	25.7727	.00000	.99999	.00000	25 42 32	6.5758	.00000	.99999	.99999
25 38 6	28.2955	.00000	.99999	.00000	25 43 31	5.6479	.00000	.99999	.99999
25 39 5	30.9545	.00000	.99999	.00000	25 44 30	4.8485	.00000	.99999	.99999
25 40 4	33.7500	.00000	.99999	.00000	25 45 29	4.1894	.00000	.99999	.99999
25 41 3	36.6818	.00000	.99999	.00000	25 46 28	3.6667	.00000	.99999	.99999
25 42 2	39.7500	.00000	.99999	.00000	25 47 27	3.2803	.00000	.99999	.99999
25 43 1	42.9545	.00000	.99999	.00000	25 48 26	3.0303	.00000	.99999	.99999
25 44 0	46.2955	.00000	.99999	.00000	25 49 25	2.9167	.00000	.99999	.99999
25 45 0	49.7727	.00000	.99999	.00000	25 50 24	2.9394	.00000	.99999	.99999
25 46 0	53.4445	.00000	.99999	.00000	25 51 23	3.0985	.00000	.99999	.99999
25 47 0	57.2955	.00000	.99999	.00000	25 52 22	3.3939	.00000	.99999	.99999
25 48 0	61.3664	.00000	.99999	.00000	25 53 21	3.8258	.00000	.99999	.99999
25 49 0	65.6479	.00000	.99999	.00000	25 54 20	4.3939	.00000	.99999	.99999
25 50 0	70.1898	.00000	.99999	.00000	25 55 19	5.0985	.00000	.99999	.99999
25 51 0	74.9394	.00000	.99999	.00000	25 56 18	5.9394	.00000	.99999	.99999
25 52 0	79.8485	.00000	.99999	.00000	25 57 17	6.9167	.00000	.99999	.99999
25 53 0	84.9394	.00000	.99999	.00000	25 58 16	8.0303	.00000	.99999	.99999
25 54 0	90.1894	.00000	.99999	.00000	25 59 15	9.2803	.00000	.99999	.99999
25 55 0	95.6667	.00000	.99999	.00000	25 60 14	10.6667	.00000	.99999	.99999

(9)

TABLE C

U	V	W	X2	P(1/3) CUM P(1/3)	U	V	W	X2	P(1/3) CUM P(1/3)
25 61	13	12.1894	.00000	.99999	26 36	37	13.1667	.00000	.99961
25 62	12	13.8485	.00000	.99999	26 37	36	11.5076	.00000	.99960
25 63	11	15.6439	.00000	.99999	26 38	35	9.9648	.00000	.99958
25 64	10	17.5758	.00000	.99999	26 39	34	8.5905	.00000	.99957
25 65	9	19.6439	.00000	.99999	26 40	33	7.3445	.00000	.99956
25 66	8	21.8485	.00000	.99999	26 41	32	6.2348	.00000	.99954
25 67	7	24.1894	.00000	.99999	26 42	31	5.2576	.00000	.99953
25 68	6	26.6667	.00000	.99999	26 43	30	4.4167	.00000	.99951
25 69	5	29.2803	.00000	.99999	26 44	29	3.7121	.00000	.99949
25 70	4	32.0303	.00000	.99999	26 45	28	3.1439	.00000	.99947
25 71	3	34.9167	.00000	.99999	26 46	27	2.7121	.00000	.99945
25 72	2	37.9394	.00000	.99999	26 47	26	2.4167	.00000	.99943
25 73	1	41.0985	.00000	.99999	26 48	25	2.2576	.00000	.99941
25 74	0	44.3939	.00000	.99999	26 49	24	2.2348	.00000	.99939
26 0	73	163.7121	.00000	.99999	26 50	23	2.3445	.00000	.99937
26 1	72	157.1439	.00000	.99999	26 51	22	2.5985	.00000	.99935
26 2	71	150.7121	.00000	.99999	26 52	21	2.9848	.00000	.99933
26 3	70	144.167	.00000	.99999	26 53	20	3.5076	.00000	.99931
26 4	69	138.2576	.00000	.99999	26 54	19	4.1667	.00000	.99929
26 5	68	132.2348	.00000	.99999	26 55	18	4.9621	.00000	.99927
26 6	67	126.3485	.00000	.99999	26 56	17	5.8939	.00000	.99925
26 7	66	120.5985	.00000	.99999	26 57	16	6.9621	.00000	.99923
26 8	65	114.9848	.00000	.99999	26 58	15	8.1667	.00000	.99921
26 9	64	109.5076	.00000	.99999	26 59	14	9.5076	.00000	.99919
26 10	63	104.1667	.00000	.99999	26 60	13	10.9848	.00000	.99917
26 11	62	98.9621	.00000	.99999	26 61	12	12.5985	.00000	.99915
26 12	61	93.8939	.00000	.99999	26 62	11	14.3445	.00000	.99913
26 13	60	88.9621	.00000	.99999	26 63	10	16.2348	.00000	.99911
26 14	59	84.1667	.00000	.99999	26 64	9	18.2576	.00000	.99909
26 15	58	79.5076	.00000	.99999	26 65	8	20.4167	.00000	.99907
26 16	57	74.9848	.00000	.99999	26 66	7	22.7121	.00000	.99905
26 17	56	70.5985	.00000	.99999	26 67	6	25.1439	.00000	.99903
26 18	55	66.3485	.00000	.99999	26 68	5	27.7121	.00000	.99901
26 19	54	62.2348	.00000	.99999	26 69	4	30.4167	.00000	.99899
26 20	53	58.2576	.00000	.99999	26 70	3	33.2576	.00000	.99897
26 21	52	54.4167	.00000	.99999	26 71	2	36.2348	.00000	.99895
26 22	51	50.7121	.00000	.99999	26 72	1	39.3445	.00000	.99893
26 23	50	47.1393	.00000	.99999	26 73	0	42.5985	.00000	.99891
26 24	49	43.7121	.00000	.99999	27 0	72	158.7273	.00000	.99999
26 25	48	40.4167	.00000	.99999	27 1	71	152.2500	.00000	.99999
26 26	47	37.2576	.00000	.99999	27 2	70	145.5091	.00000	.99999
26 27	46	34.2348	.00000	.99999	27 3	69	139.7045	.00000	.99999
26 28	45	31.3485	.00000	.99999	27 4	68	133.6845	.00000	.99999
26 29	44	28.5985	.00000	.99999	27 5	67	127.4450	.00000	.99999
26 30	43	25.9848	.00000	.99999	27 6	66	121.0991	.00000	.99999
26 31	42	23.5076	.00000	.99999	27 7	65	114.2500	.00000	.99999
26 32	41	21.1667	.00000	.99997	27 8	64	107.7273	.00000	.99999
26 33	40	18.9621	.00000	.99992	27 9	63	101.3409	.00000	.99999
26 34	39	16.9393	.00000	.99978	27 10	62	95.0909	.00000	.99999
26 35	38	14.9621	.00000	.99944	27 11	61	89.0775	.00000	.99999

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TABLE C

CHI SQUARE - P(1/3), P(4/9), P(2/9) N=99

U	V	W	X2	P(1/3) CUM P(1/3)	U	V	W	X2	P(1/3) CUM P(1/3)
29 67	3	26.9167	.00000	.99999	30 66	23	.4091	.00717	.10322
29 68	2	31.7516	.00000	.99999	30 67	22	.4773	.00701	.21049
29 69	1	34.7348	.00000	.99999	30 68	21	.6816	.00643	.29088
29 70	0	37.8865	.00000	.99999	30 69	20	1.0227	.00551	.40021
30 0 69	144.6818	.00000	.99999	.99999	30 50	19	1.5000	.00441	.52313
30 1 68	138.4773	.00000	.99999	.99999	30 51	18	2.1136	.00329	.68731
30 2 67	132.4091	.00000	.99999	.99999	30 52	17	2.8636	.00227	.87009
30 3 66	126.4773	.00000	.99999	.99999	30 53	16	3.7500	.0014	.98583
30 4 65	120.6818	.00000	.99999	.99999	30 54	15	4.7727	.00066	.99866
30 5 64	115.0227	.00000	.99999	.99999	30 55	14	5.9318	.00047	.99983
30 6 63	109.5000	.00000	.99999	.99999	30 56	13	7.2273	.00024	.99973
30 7 62	104.1136	.00000	.99999	.99999	30 57	12	8.6591	.00011	.99978
30 8 61	98.8636	.00000	.99999	.99999	30 58	11	10.2273	.00004	.99999
30 9 60	93.7500	.00000	.99999	.99999	30 59	10	11.9318	.00002	.99976
30 10 59	88.7727	.00000	.99999	.99999	30 60	9	13.7727	.00001	.99904
30 11 58	83.9318	.00000	.99999	.99999	30 61	8	15.7500	.00000	.99962
30 12 57	79.2273	.00000	.99999	.99999	30 62	7	17.8636	.00000	.99986
30 13 56	74.6591	.00000	.99999	.99999	30 63	6	20.1136	.00000	.99995
30 14 55	70.2273	.00000	.99999	.99999	30 64	5	22.5000	.00000	.99998
30 15 54	65.9318	.00000	.99999	.99999	30 65	4	25.0227	.00000	.99999
30 16 53	61.7727	.00000	.99999	.99999	30 66	3	27.6818	.00000	.99999
30 17 52	57.7500	.00000	.99999	.99999	30 67	2	30.4773	.00000	.99999
30 18 51	53.8636	.00000	.99999	.99999	30 68	1	33.4091	.00000	.99999
30 19 50	50.1136	.00000	.99999	.99999	30 69	0	36.4773	.00000	.99999
30 20 49	46.5000	.00000	.99999	.99999	31 0 68	147.7030	.00000	.99999	
30 21 48	43.0227	.00000	.99999	.99999	31 1 67	134.1899	.00000	.99999	
30 22 47	39.6818	.00000	.99999	.99999	31 2 66	124.2121	.00000	.99999	
30 23 46	36.4773	.00000	.99999	.99999	31 3 65	112.3712	.00000	.99999	
30 24 45	33.4091	.00000	.99999	.99999	31 4 64	100.6667	.00000	.99999	
30 25 44	30.4773	.00000	.99999	.99999	31 5 63	89.0945	.00000	.99999	
30 26 43	27.6818	.00000	.99999	.99999	31 6 62	78.6667	.00000	.99999	
30 27 42	25.0227	.00000	.99999	.99999	31 7 61	69.3712	.00000	.99999	
30 28 41	22.5000	.00000	.99999	.99999	31 8 60	61.2121	.00000	.99999	
30 29 40	20.1136	.00000	.99999	.99999	31 9 59	54.1899	.00000	.99999	
30 30 39	17.8636	.00000	.99999	.99999	31 10 58	48.1030	.00000	.99999	
30 31 38	15.7500	.00000	.99999	.99999	31 11 57	42.0530	.00000	.99999	
30 32 37	13.7727	.00000	.99999	.99999	31 12 56	36.1399	.00000	.99999	
30 33 36	11.9318	.00000	.99999	.99999	31 13 55	30.4621	.00000	.99999	
30 34 35	10.2273	.00000	.99999	.99999	31 14 54	25.1212	.00000	.99999	
30 35 34	8.6591	.00000	.99999	.99999	31 15 53	20.1167	.00000	.99999	
30 36 33	7.2273	.00000	.99999	.99999	31 16 52	15.4445	.00000	.99999	
30 37 32	5.9318	.00000	.99999	.99999	31 17 51	11.9417	.00000	.99999	
30 38 31	4.7727	.00000	.99999	.99999	31 18 50	9.1212	.00000	.99999	
30 39 30	3.7500	.00000	.99999	.99999	31 19 49	6.47621	.00000	.99999	
30 40 29	2.8636	.00000	.99999	.99999	31 20 48	4.05394	.00000	.99999	
30 41 28	2.1136	.00000	.99999	.99999	31 21 47	2.85300	.00000	.99999	
30 42 27	1.5000	.00000	.99999	.99999	31 22 46	1.93032	.00000	.99999	
30 43 26	1.0227	.00000	.99999	.99999	31 23 45	1.31894	.00000	.99999	
30 44 25	.6818	.00000	.99999	.99999	31 24 44	.912121	.00000	.99999	
30 45 24	.4773	.00000	.99999	.99999	31 25 43	.57112	.00000	.99999	

(13)

TABLE C

U	V	W	X2	P(1/3) CUM P(1/3)	U	V	W	X2	P(1/3) CUM P(1/3)
31 26	42	25.6667	.00000	.99999	32 7 60	96.7803	.00000	.99999	
31 27	41	23.9885	.00000	.99999	32 8 59	91.7121	.00000	.99999	
31 28	40	20.6667	.00000	.99999	32 9 58	86.7803	.00000	.99999	
31 29	39	16.3712	.00000	.99999	32 10 57	81.9885	.00000	.99999	
31 30	38	16.2121	.00001	.99969	32 11 56	77.3258	.00000	.99999	
31 31	37	16.1899	.00001	.99921	32 12 55	72.8030	.00000	.99999	
31 32	36	12.3030	.00003	.99803	32 13 54	68.4167	.00000	.99999	
31 33	35	10.5530	.00007	.99536	32 14 53	64.1667	.00000	.99999	
31 34	34	8.9399	.00014	.99087	32 15 52	60.1530	.00000	.99999	
31 35	33	7.4621	.00027	.97689	32 16 51	56.0758	.00000	.99999	
31 36	32	6.1212	.00049	.95512	32 17 50	52.2348	.00000	.99999	
31 37	31	4.9167	.00085	.92711	32 18 49	48.5303	.00000	.99999	
31 38	30	3.8685	.00139	.89500	32 19 48	44.9621	.00000	.99999	
31 39	29	2.9167	.00214	.85762	32 20 47	41.5303	.00000	.99999	
31 40	28	2.1212	.00310	.80659	32 21 46	38.2348	.00000	.99999	
31 41	27	1.4621	.00423	.74266	32 22 45	35.1758	.00000	.99999	
31 42	26	.9394	.00544	.67322	32 23 44	32.2030	.00000	.99999	
31 43	25	.5530	.00686	.59233	32 24 43	29.1667	.00000	.99999	
31 44	24	.3358	.00848	.50191	32 25 42	26.4167	.00000	.99999	
31 45	23	.1894	.00798	.40212	32 26 41	23.8030	.00000	.99999	
31 46	22	.1212	.00794	.29719	32 27 40	21.3258	.00000	.99999	
31 47	21	.7312	.00747	.18884	32 28 39	18.9885	.00000	.99999	
31 48	0	.6667	.00653	.72601	32 29 38	16.7803	.00000	.99999	
31 49	19	1.0985	.00535	.63618	32 30 37	14.7121	.00001	.99951	
31 50	18	1.6667	.00465	.57521	32 31 36	12.7803	.00002	.99951	
31 51	17	2.3712	.00406	.70238	32 32 35	10.9885	.00005	.99615	
31 52	16	3.2121	.00347	.80245	32 33 34	9.3258	.00011	.99120	
31 53	15	4.1899	.00313	.88121	32 34 33	7.8030	.00022	.98054	
31 54	14	5.3030	.00263	.93058	32 35 32	6.4167	.00042	.96017	
31 55	13	6.5530	.00232	.96253	32 36 31	5.1667	.00074	.92742	
31 56	12	7.9394	.00215	.98135	32 37 30	4.0530	.00124	.88683	
31 57	11	9.4621	.00206	.99151	32 38 29	3.0758	.00195	.83940	
31 58	10	11.1212	.00202	.99636	32 39 28	2.2348	.00284	.78718	
31 59	9	12.9167	.00201	.99840	32 40 27	1.5303	.00387	.72434	
31 60	8	14.8685	.00200	.99940	32 41 26	.9621	.00516	.65181	
31 61	7	16.9167	.00200	.99978	32 42 25	.5303	.00663	.57382	
31 62	6	19.1212	.00200	.99999	32 43 24	.2348	.00771	.48365	
31 63	5	21.4621	.00200	.99997	32 44 23	.0758	.00841	.38989	
31 64	4	23.9394	.00200	.99998	32 45 22	.0530	.00880	.29593	
31 65	3	26.5530	.00200	.99999	32 46 21	.1667	.00823	.20710	
31 66	2	29.3030	.00200	.99999	32 47 20	.4167	.00735	.12755	
31 67	1	32.1899	.00200	.99999	32 48 19	.8303	.00613	.05336	
31 68	0	35.2121	.00200	.99999	32 49 18	1.3258	.00475	.00899	
32 0 67	136.0758	.00000	.99999	.99999	32 50 17	1.9885	.00342	.02514	
32 1 66	130.0530	.00000	.99999	.99999	32 51 16	2.7803	.00228	.05878	
32 2 65	124.1667	.00000	.99999	.99999	32 52 15	3.7121	.00140	.09373	
32 3 64	118.4167	.00000	.99999	.99999	32 53 14	4.7803	.00079	.13122	
32 4 63	112.8030	.00000	.99999	.99999	32 54 13	5.9885	.00041	.17126	
32 5 62	107.3258	.00000	.99999	.99999	32 55 12	7.3258	.00019	.21560	
32 6 61	101.9885	.00000	.99999	.99999	32 56 11	8.8030	.00008	.26785	

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TABLE C

CHI SQUARE - P(1/3), P(4/9), P(2/9) N=99

U	V	W	X2	P(1/3) CUM P(1/3)	U	V	W	X2	P(1/3) CUM P(1/3)
32 57 10	10.4167	.00003	.99976	.99976	33 39 27	1.7395	.0037	.59428	
32 58 9	12.1667	.00001	.999795	.999795	33 40 26	1.9099	.0044	.74572	
32 59 8	14.0531	.00000	.999818	.999818	33 41 25	.4536	.00635	.80535	
32 60 7	16.0758	.00000	.999867	.999867	33 42 24	.2727	.00754	.83905	
32 61 6	18.2348	.00000	.999941	.999941	33 43 23	.0682	.00841	.84294	
32 62 5	20.5303	.00000	.999996	.999996	33 44 22	.0070	.00880	.84000	
32 63 4	22.9621	.00000	.999998	.999998	33 45 21	.0682	.00880	.83453	
32 64 3	25.5303	.00000	.999999	.999999	33 46 20	.2727	.00785	.81350	
32 65 2	28.2348	.00000	.999999	.999999	33 47 19	.6136	.00646	.75902	
32 66 1	31.0758	.00000	.999999	.999999	33 48 18	1.0999	.00529	.64073	
32 67 0	34.0530	.00000	.999999	.999999	33 49 17	1.7045	.00389	.50088	
33 0 66	132.0800	.00000	.99999	.99999	33 50 16	2.4545	.00264	.31568	
33 1 65	126.0642	.00000	.99999	.99999	33 51 15	3.3409	.00166	.18588	
33 2 64	120.2727	.00000	.99999	.99999	33 52 14	4.3636	.00094	.08741	
33 3 63	114.6136	.00000	.99999	.99999	33 53 13	.55227	.00051	.03735	
33 4 62	109.9699	.00000	.99999	.99999	33 54 12	6.8182	.00024	.06750	
33 5 61	103.7045	.00000	.99999	.99999	33 55 11	8.2500	.00011	.04643	
33 6 60	98.4545	.00000	.99999	.99999	33 56 10	9.8182	.00004	.02921	
33 7 59	93.3409	.00000	.99999	.99999	33 57 9	11.5227	.00001	.01967	
33 8 58	88.3636	.00000	.99999	.99999	33 58 8	13.3636	.00000	.01080	
33 9 57	83.5227	.00000	.99999	.99999	33 59 7	15.3409	.00000	.00957	
33 10 56	78.8182	.00000	.99999	.99999	33 60 6	17.4545	.00000	.00848	
33 11 55	74.1667	.00000	.99999	.99999	33 61 5	19.7045	.00000	.00750	
33 12 54	69.6602	.00000	.99999	.99999	33 62 4	22.0909	.00000	.00660	
33 13 53	65.3227	.00000	.99999	.99999	33 63 3	24.6136	.00000	.00579	
33 14 52	61.3636	.00000	.99999	.99999	33 64 2	27.2727	.00000	.00500	
33 15 51	57.3409	.00000	.99999	.99999	33 65 1	30.0682	.00000	.00429	
33 16 50	53.4545	.00000	.99999	.99999	33 66 0	33.0000	.00000	.00360	
33 17 49	49.7645	.00000	.99999	.99999	34 0 65	128.0758	.00000	.00000	
33 18 48	46.3409	.00000	.99999	.99999	34 1 64	122.2348	.00000	.00000	
33 19 47	42.9636	.00000	.99999	.99999	34 2 63	116.5303	.00000	.00000	
33 20 46	39.7272	.00000	.99999	.99999	34 3 62	110.9621	.00000	.00000	
33 21 45	36.6000	.00000	.99999	.99999	34 4 61	105.5303	.00000	.00000	
33 22 44	33.5803	.00000	.99999	.99999	34 5 60	100.2348	.00000	.00000	
33 23 43	30.6682	.00000	.99999	.99999	34 6 59	95.0758	.00000	.00000	
33 24 42	27.8727	.00000	.99999	.99999	34 7 58	90.0530	.00000	.00000	
33 25 41	25.1636	.00000	.99999	.99999	34 8 57	85.1667	.00000	.00000	
33 26 40	22.5409	.00000	.99999	.99999	34 9 56	80.4167	.00000	.00000	
33 27 39	19.9645	.00000	.99999	.99999	34 10 55	75.8030	.00000	.00000	
33 28 38	17.4585	.00000	.99998	.99998	34 11 54	71.3256	.00000	.00000	
33 29 37	15.0409	.00001	.99998	.99998	34 12 53	66.9840	.00000	.00000	
33 30 36	13.3636	.00002	.99981	.99981	34 13 52	62.7803	.00000	.00000	
33 31 35	11.9527	.00004	.99960	.99960	34 14 51	58.7121	.00000	.00000	
33 32 34	9.8182	.00008	.99929	.99929	34 15 50	54.7803	.00000	.00000	
33 33 33	8.2500	.00015	.99889	.99889	34 16 49	50.9645	.00000	.00000	
33 34 32	6.9682	.00033	.98783	.98783	34 17 48	47.3256	.00000	.00000	
33 35 31	5.9227	.00068	.95815	.95815	34 18 47	43.8030	.00000	.00000	
33 36 30	5.1636	.00104	.88885	.88885	34 19 46	40.4167	.00000	.00000	
33 37 29	4.5409	.00169	.81756	.81756	34 20 45	37.1667	.00000	.00000	
33 38 28	2.9545	.00257	.71825	.71825	34 21 44	34.0530	.00000	.00000	



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TABLE C  
CHE SQUARE - P(11/73), P(14/73), P(22/73) N=99

U	V	W	X2	PEAK CUM P(11/73)	U	V	W	X2	PEAK CUM P(11/73)
35 36 8	12.3030	0.0001	0.9999	36 41 22	4.7773	0.0000	0.2114		
35 37 7	14.1899	0.0000	0.9999	36 42 21	4.8091	0.0021	0.1760		
35 38 6	16.2121	0.0000	0.9999	36 43 20	4.7773	0.0074	0.2060		
35 39 5	18.3712	0.0000	0.9999	36 44 19	4.6818	0.0144	0.2469		
35 40 4	20.6667	0.0000	0.9999	36 45 18	4.6227	0.0241	0.2893		
35 41 3	23.1999	0.0000	0.9999	36 46 17	4.5899	0.0363	0.3474		
35 42 2	25.9667	0.0000	0.9999	36 47 16	4.5136	0.0509	0.4111		
35 43 1	28.9712	0.0000	0.9999	36 48 15	4.4036	0.0684	0.4782		
35 44 0	31.2121	0.0000	0.9999	36 49 14	4.2500	0.0884	0.5490		
35 45 0	33.6818	0.0000	0.9999	36 50 13	4.0727	0.0000	0.9704		
35 46 0	36.3712	0.0000	0.9999	36 51 12	3.8318	0.0036	0.9752		
35 47 0	39.2899	0.0000	0.9999	36 52 11	3.5273	0.0016	0.9792		
35 48 0	42.4312	0.0000	0.9999	36 53 10	3.1691	0.0007	0.9825		
35 49 0	45.8030	0.0000	0.9999	36 54 9	2.7673	0.0003	0.9850		
35 50 0	49.4167	0.0000	0.9999	36 55 8	2.3318	0.0001	0.9875		
35 51 0	53.2812	0.0000	0.9999	36 56 7	1.8727	0.0000	0.9892		
35 52 0	57.3999	0.0000	0.9999	36 57 6	1.3900	0.0000	0.9903		
35 53 0	61.7712	0.0000	0.9999	36 58 5	0.8836	0.0000	0.9908		
35 54 0	66.4030	0.0000	0.9999	36 59 4	0.3536	0.0000	0.9909		
35 55 0	71.2899	0.0000	0.9999	36 60 3	0.2200	0.0000	0.9908		
35 56 0	76.4312	0.0000	0.9999	36 61 2	0.2527	0.0000	0.9909		
35 57 0	81.8312	0.0000	0.9999	36 62 1	0.2768	0.0000	0.9909		
35 58 0	87.4899	0.0000	0.9999	36 63 0	0.2973	0.0000	0.9909		
35 59 0	93.4030	0.0000	0.9999	37 0 62	0.1721	0.0000	0.9909		
35 60 0	99.5712	0.0000	0.9999	37 1 61	0.1169	0.0000	0.9909		
35 61 0	106.0000	0.0000	0.9999	37 2 60	0.0621	0.0000	0.9909		
35 62 0	112.6812	0.0000	0.9999	37 3 59	0.0416	0.0000	0.9909		
35 63 0	119.6167	0.0000	0.9999	37 4 58	0.0276	0.0000	0.9909		
35 64 0	126.8030	0.0000	0.9999	37 5 57	0.0174	0.0000	0.9909		
35 65 0	134.2312	0.0000	0.9999	37 6 56	0.0100	0.0000	0.9909		
35 66 0	141.9030	0.0000	0.9999	37 7 55	0.0058	0.0000	0.9909		
35 67 0	149.8167	0.0000	0.9999	37 8 54	0.0036	0.0000	0.9909		
35 68 0	157.9712	0.0000	0.9999	37 9 53	0.0022	0.0000	0.9909		
35 69 0	166.3712	0.0000	0.9999	37 10 52	0.0016	0.0000	0.9909		
35 70 0	175.0167	0.0000	0.9999	37 11 51	0.0011	0.0000	0.9909		
35 71 0	183.9030	0.0000	0.9999	37 12 50	0.0009	0.0000	0.9909		
35 72 0	193.0312	0.0000	0.9999	37 13 49	0.0007	0.0000	0.9909		
35 73 0	202.4030	0.0000	0.9999	37 14 48	0.0006	0.0000	0.9909		
35 74 0	212.0167	0.0000	0.9999	37 15 47	0.0005	0.0000	0.9909		
35 75 0	221.8812	0.0000	0.9999	37 16 46	0.0004	0.0000	0.9909		
35 76 0	232.0000	0.0000	0.9999	37 17 45	0.0003	0.0000	0.9909		
35 77 0	242.3712	0.0000	0.9999	37 18 44	0.0002	0.0000	0.9909		
35 78 0	253.0000	0.0000	0.9999	37 19 43	0.0001	0.0000	0.9909		
35 79 0	263.8812	0.0000	0.9999	37 20 42	0.0000	0.0000	0.9909		
35 80 0	275.0167	0.0000	0.9999	37 21 41	0.0000	0.0000	0.9909		
35 81 0	286.4030	0.0000	0.9999	37 22 40	0.0000	0.0000	0.9909		
35 82 0	298.0312	0.0000	0.9999	37 23 39	0.0000	0.0000	0.9909		
35 83 0	310.0000	0.0000	0.9999	37 24 38	0.0000	0.0000	0.9909		
35 84 0	322.2167	0.0000	0.9999	37 25 37	0.0000	0.0000	0.9909		
35 85 0	334.6812	0.0000	0.9999	37 26 36	0.0000	0.0000	0.9909		

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TABLE C

U	V	W	X2	PEAK CUM P(11/73)	U	V	W	X2	PEAK CUM P(11/73)
37 27 35	14.7348	0.0001	0.9999	38 14 47	4.6212	0.0000	0.9999		
37 28 34	16.8485	0.0001	0.9998	38 15 46	4.6150	0.0000	0.9999		
37 29 33	18.9985	0.0003	0.9996	38 16 45	4.6121	0.0000	0.9999		
37 30 32	21.1848	0.0007	0.9991	38 17 44	4.6126	0.0001	0.9999		
37 31 31	23.4076	0.0015	0.9985	38 18 43	4.6167	0.0003	0.9999		
37 32 30	25.6667	0.0029	0.9979	38 19 42	4.6139	0.0006	0.9999		
37 33 29	27.9621	0.0053	0.9974	38 20 41	4.6156	0.0009	0.9999		
37 34 28	30.2939	0.0091	0.9973	38 21 40	4.6176	0.0013	0.9999		
37 35 27	32.6621	0.0146	0.9968	38 22 39	4.6199	0.0017	0.9999		
37 36 26	35.0667	0.0219	0.9969	38 23 38	4.6216	0.0020	0.9999		
37 37 25	37.5076	0.0307	0.9962	38 24 37	4.6238	0.0023	0.9999		
37 38 24	4.0000	0.0404	0.9954	38 25 36	4.6261	0.0026	0.9999		
37 39 23	1.0000	0.0497	0.9949	38 26 35	4.6285	0.0029	0.9999		
37 40 22	0.0000	0.0574	0.9948	38 27 34	4.6312	0.0031	0.9999		
37 41 21	0.0000	0.0614	0.9950	38 28 33	4.6340	0.0034	0.9999		
37 42 20	0.0000	0.0614	0.9954	38 29 32	4.6367	0.0036	0.9999		
37 43 19	0.0000	0.0571	0.9958	38 30 31	4.6395	0.0039	0.9999		
37 44 18	0.0000	0.0493	0.9963	38 31 30	4.6426	0.0042	0.9999		
37 45 17	0.0000	0.0390	0.9968	38 32 29	4.6457	0.0045	0.9999		
37 46 16	0.0000	0.0294	0.9971	38 33 28	4.6489	0.0048	0.9999		
37 47 15	0.0000	0.0219	0.9973	38 34 27	4.6521	0.0051	0.9999		
37 48 14	0.0000	0.0164	0.9975	38 35 26	4.6553	0.0054	0.9999		
37 49 13	0.0000	0.0121	0.9976	38 36 25	4.6585	0.0057	0.9999		
37 50 12	0.0000	0.0087	0.9978	38 37 24	4.6617	0.0060	0.9999		
37 51 11	0.0000	0.0067	0.9979	38 38 23	4.6649	0.0063	0.9999		
37 52 10	0.0000	0.0057	0.9980	38 39 22	4.6681	0.0066	0.9999		
37 53 9	0.0000	0.0053	0.9981	38 40 21	4.6713	0.0069	0.9999		
37 54 8	0.0000	0.0051	0.9982	38 41 20	4.6745	0.0071	0.9999		
37 55 7	0.0000	0.0050	0.9983	38 42 19	4.6777	0.0074	0.9999		
37 56 6	0.0000	0.0050	0.9984	38 43 18	4.6809	0.0076	0.9999		
37 57 5	0.0000	0.0050	0.9985	38 44 17	4.6841	0.0079	0.9999		
37 58 4	0.0000	0.0050	0.9986	38 45 16	4.6873	0.0081	0.9999		
37 59 3	0.0000	0.0050	0.9987	38 46 15	4.6905	0.0084	0.9999		
37 60 2	0.0000	0.0050	0.9988	38 47 14	4.6937	0.0086	0.9999		
37 61 1	0.0000	0.0050	0.9989	38 48 13	4.6969	0.0089	0.9999		
37 62 0	0.0000	0.0050	0.9990	38 49 12	4.6999	0.0091	0.9999		
38 0 61	0.0000	0.0050	0.9991	38 50 11	4.7029	0.0094	0.9999		
38 1 60	0.0000	0.0050	0.9992	38 51 10	4.7059	0.0096	0.9999		
38 2 59	0.0000	0.0050	0.9993	38 52 9	4.7089	0.0099	0.9999		
38 3 58	0.0000	0.0050	0.9994	38 53 8	4.7119	0.0101	0.9999		
38 4 57	0.0000	0.0050	0.9995	38 54 7	4.7149	0.0104	0.9999		
38 5 56	0.0000	0.0050	0.9996	38 55 6	4.7179	0.0106	0.9999		
38 6 55	0.0000	0.0050	0.9997	38 56 5	4.7209	0.0109	0.9999		
38 7 54	0.0000	0.0050	0.9998	38 57 4	4.7239	0.0111	0.9999		
38 8 53	0.0000	0.0050	0.9999	38 58 3	4.7269	0.0114	0.9999		
38 9 52	0.0000	0.0050	0.9999	38 59 2	4.7299	0.0116	0.9999		
38 10 51	0.0000	0.0050	0.9999	38 60 1	4.7329	0.0119	0.9999		
38 11 50	0.0000	0.0050	0.9999	38 61 0	4.7359	0.0121	0.9999		
38 12 49	0.0000	0.0050	0.9999	38 62 0	4.7389	0.0124	0.9999		
38 13 48	0.0000	0.0050	0.9999	38 63 0	4.7419	0.0126	0.9999		

(18)

TABLE C  
CHE SQUARE - P(11/73), P(14/73), P(22/73) N=99

U	V	W	X2	PEAK CUM P(11/73)	U	V	W	X2	PEAK CUM P(11/73)
39 4 38	14.7348	0.0001	0.9999		39 51 8	11.4545	0.0001	0.9999	0.99682
39 5 37	16.8485	0.0001	0.9998		39 52 7	13.1591	0.0000	0.9999	0.99854
39 6 36	18.9985	0.0003	0.9996		39 53 6	14.9000	0.0000	0.9999	0.99914
39 7 35	21.1848	0.0007	0.9991		39 54 5	16.6773	0.0000	0.9999	0.99972
39 8 34	23.4076	0.0015	0.9985		39 55 4	18.4909	0.0000	0.9999	0.99992
39 9 33	25.6667	0.0029	0.9979		39 56 3	20.3409	0.0000	0.9999	0.99999
39 10 32	27.9621	0.0053	0.9974		39 57 2	22.2273	0.0000	0.9999	0.99999
39 11 31	30.2939	0.0091	0.9973		39 58 1	24.1500	0.0000	0.9999	0.99999
39 12 30	32.6621	0.0146	0.9968		39 59 0	26.1091	0.0000	0.9999	0.99999
39 13 29	35.0667	0.0219	0.9969		40 0 0	28.1045	0.0000	0.9999	0.99999
39 14 28	37.5076	0.0307	0.9962		40 0 19	30.1371	0.0000	0.9999	0.99999
39 15 27	4.0000	0.0404	0.9954		40 1 18	32.1667	0.0000	0.9999	0.99999
39 16 26	6.4545	0.0519	0.9945		40 2 17	34.2500	0.0000	0.9999	0.99999
39 17 25	8.9545	0.0653	0.9935		40 3 16	36.3818	0.0000	0.9999	0.99999
39 18 24	11.5000	0.0807	0.9923		40 4 15	38.5636	0.0000	0.9999	0.99999
39 19 23	14.0909	0.0981	0.9910		40 5 14	40.7955	0.0000	0.9999	0.99999
39 20 22	16.7273	0.0117	0.9903		40 6 13	43.0773	0.0000	0.9999	0.99999
39 21 21	19.4091	0.0139	0.9896		40 7 12	45.4091	0.0000	0.9999	0.99999
39 22 20	22.1354	0.0171	0.9888		40 8 11	47.7909	0.0000	0.9999	0.99999
39 23 19	24.9091	0.0215	0.9879		40 9 10	50.2227	0.0000	0.9999	0.99999
39 24 18	27.7273	0.0269	0.9869		40 10 9	52.7045	0.0000	0.9999	0.99999
39 25 17	30.5909	0.0335	0.9858		40 11 8	55.2273	0.0000	0.9999	0.99999
39 26 16	33.4909	0.0411	0.9846		40 12 7	57.7909	0.0000	0.9999	0.99999
39 27 15	36.4273	0.0496	0.9833		40 13 6	60.3818	0.0000	0.9999	0.99999
39 28 14	39.4000	0.0591	0.9819		40 14 5	63.0000	0.0000	0.9999	0.99999
39 29 13	42.4091	0.0696	0.9804		40 15 4	65.6545	0.0000	0.9999	0.99999
39 30 12	45.4545	0.0811	0.9788		40 16 3	68.3455	0.0000	0.9999	0.99999
39 31 11	48.5455	0.0935	0.9771		40 17 2	71.0727	0.0000	0.9999	0.99999
39 32 10	51.6818	0.1068	0.9753		40 18 1	73.8455	0.0000	0.9999	0.99999
39 33 9	54.8636	0.1209	0.9735		40 19 0	76.6636	0.0000	0.9999	0.99999
39 34 8	58.0909	0.1358	0.9716		40 20 0	79.5273	0.0000	0.9999	0.99999
39 35 7	61.3636	0.1515	0.9696		40 21 0	82.4364	0.0000	0.9999	0.99999
39 36 6	64.6818	0.1679	0.9675		40 22 0	85.3909	0.0000	0.9999	0.99999
39 37 5	68.0455	0.1850	0.9653		40 23 0	88.3909	0.0000	0.9999	0.99999
39 38 4	71.4545	0.2027	0.9632		40 24 0	91.4364	0.0000	0.9999	0.99999
39 39 3	74.9091	0.2211	0.9611		40 25 0	94.5273	0.0000	0.9999	0.99999
39 40 2	78.4091	0.2400	0.9590		40 26 0	97.6636	0.0000	0.9999	0.99999
39 41 1	81.9545	0.2595	0.9569		40 27 0	100.8455	0.0000	0.9999	0.99999
39 42 0	85.5455	0.2796	0.9548		40 28 0	104.0727	0.0000	0.9999	0.99999
39 43 0	89.1818	0.2999	0.9527		40 29 0	107.3455	0.0000	0.9999	0.99999
39 44 0	92.8636	0.3203	0.9506		40 30 0	110.6636	0.0000	0.9999	0.99999
39 45 0	96.5909	0.3407	0.9485		40 31 0	114.0273	0.0000	0.9999	0.99999
39 46 0	100.3636	0.3611	0.9464		40 32 0	117.4364	0.0000	0.9999	0.99999
39 47 0	104.1818	0.3815	0.9443		40 33 0	120.8909	0.0000	0.9999	0.99999
39 48 0	108.0455	0.4019	0.9422		40 34 0	124.3909	0.0000	0.9999	0.99999
39 49 0	111.9545	0.4223	0.9401		40 35 0	127.9364	0.0000	0.9999	0.99999
39 50 0	115.9091	0.4427	0.9380		40 36 0	131.5273	0.0000	0.9999	0.99999
39 51 0	119.9182	0.4631	0.9359		40 37 0	135.1636	0.0000	0.9999	0.99999
39 52 0	123.9727	0.4835	0.9338		40 38 0	138.8455	0.0000	0.9999	0.99999
39 53 0	128.0727	0.5039	0.9317		40 39 0	142.5727	0.0000	0.9999	0.99999
39 54 0	132.2182	0.5243	0.9296		40 40 0	146.3455	0.0000	0.9999	0.99999
39 55 0	136.4091	0.5447	0.9275						
39 56 0	140.6455	0.5651	0.9254						
39 57 0	144.9273	0.5855	0.9233						
39 58 0	149.2545	0.6059	0.9212						
39 59 0	153.6273	0.6263	0.9191						
39 60 0	158.0455	0.6467	0.9170						
39 61 0	162.5091	0.6671	0.9149						
39 62 0	167.0182	0.6875	0.9128						
39 63 0	171.5727	0.7079	0.9107						
39 64 0	176.1727	0.7283	0.9086						
39 65 0	180.8182	0.7487	0.9065						
39 66 0	185.5091	0.7691	0.9044						
39 67 0	190.2455	0.7895	0.9023						
39 68 0	195.0273	0.8099	0.9002						
39 69 0	199.8545	0.8303	0.8981						
39 70 0	204.7273	0.8507	0.8960						
39 71 0	209.6455	0.8711	0.8939						
39 72 0	214.6091	0.8915	0.8918						
39 73 0	219.6182	0.9119	0.8897						
39 74 0	224.6727	0.9323	0.8876						
39 75 0	229.7727	0.9527	0.8855						
39 76 0	234.9182	0.9731	0.8834						
39 77 0	240.1091	0.9935	0.8813						
39 78 0	245.3455	1.0139	0.8792						
39 79 0	250.6273	1.0343	0.8771						
39 80 0	255.9545	1.0547	0.8750						
39 81 0	261.3273	1.0751	0.8729						
39 82 0	266.7455	1.0955	0.8708						
39 83 0	272.2091	1.1159	0.8687						
39 84 0	277.7182	1.1363	0.8666						
39 85 0	283.2727	1.1567	0.8645						
39 86 0	288.8727	1.1771	0.8624						
39 87 0	294.5182	1.1975	0.8603						
39 88 0	300.2091	1.2179	0.8582						
39 89 0	305.9455	1.2383	0.8561						
39 90 0	311.7273	1.2587	0.8540						
39 91 0	317.5545	1.2791	0.8519						
39 92 0	323.4273	1.2995	0.8498						
39 93 0	329.3455	1.3199	0.8477						
39 94 0	335.3091	1.3403	0.8456						
39 95 0	341.3182	1.3607	0.8435						
39 96 0	347.3727	1.3811	0.8414						
39 97 0	353.4727	1.4015	0.8393						
39 98 0	359.6182	1.4219	0.8372						
39 99 0	365.8091	1.4423	0.8351						
39 100 0	372.0455	1.4627	0.8330						



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TABLE C

CHI SQUARE - P(1/3), P(1/3), P(2/3) N=99

U	V	W	X2	P(1/3) CUM P(1/3)	U	V	W	X2	P(1/3) CUM P(1/3)
42 22 35	21.1364	.00000	.99997		43 14 42	41.6667	.00000	.99999	
42 23 34	19.0227	.00000	.99992		43 15 41	38.5530	.00000	.99999	
42 24 33	17.0455	.00000	.99980		43 16 40	35.5758	.00000	.99999	
42 25 32	15.2045	.00000	.99951		43 17 39	32.7348	.00000	.99999	
42 26 31	13.5000	.00001	.99886		43 18 38	30.0303	.00000	.99999	
42 27 30	11.9318	.00002	.99742		43 19 37	27.4621	.00000	.99999	
42 28 29	10.5000	.00004	.99514		43 20 36	25.0303	.00000	.99999	
42 29 28	9.2045	.00007	.99203		43 21 35	22.7348	.00000	.99998	
42 30 27	8.0455	.00013	.98716		43 22 34	20.5758	.00000	.99986	
42 31 26	7.0227	.00025	.98025		43 23 33	18.5530	.00000	.99966	
42 32 25	6.1364	.00057	.97175		43 24 32	16.6667	.00000	.99925	
42 33 24	5.3864	.00107	.96175		43 25 31	14.9167	.00000	.99861	
42 34 23	4.7727	.00180	.95047		43 26 30	13.3030	.00001	.99782	
42 35 22	4.2955	.00285	.93846		43 27 29	11.8258	.00002	.99728	
42 36 21	3.9545	.00428	.92619		43 28 28	10.4848	.00004	.99684	
42 37 20	3.7500	.00616	.91430		43 29 27	9.2803	.00007	.99671	
42 38 19	3.6818	.00853	.90328		43 30 26	8.2121	.00012	.98636	
42 39 18	3.7500	.01149	.89415		43 31 25	7.2815	.00021	.97491	
42 40 17	3.9545	.01514	.88621		43 32 24	6.4888	.00035	.96788	
42 41 16	4.2955	.01972	.88041		43 33 23	5.8258	.00054	.96291	
42 42 15	4.7727	.02530	.87592		43 34 22	5.2830	.00084	.95934	
42 43 14	5.3864	.03195	.87298		43 35 21	4.8467	.00128	.95720	
42 44 13	6.1364	.03982	.87054		43 36 20	4.5030	.00186	.95538	
42 45 12	7.0227	.04912	.86863		43 37 19	4.2558	.00259	.95386	
42 46 11	8.0455	.06011	.86711		43 38 18	4.0758	.00347	.95261	
42 47 10	9.2045	.07300	.86603		43 39 17	3.9434	.00450	.95167	
42 48 9	10.5000	.08802	.86511		43 40 16	3.8503	.00568	.95092	
42 49 8	11.9318	.09514	.86421		43 41 15	3.7921	.00699	.95031	
42 50 7	13.5000	.09487	.86387		43 42 14	3.7603	.00844	.95000	
42 51 6	15.2045	.09602	.86361		43 43 13	3.7488	.01000	.94984	
42 52 5	17.0455	.09800	.86342		43 44 12	3.7558	.01167	.94977	
42 53 4	19.0227	.09992	.86328		43 45 11	3.7850	.01344	.94986	
42 54 3	21.1364	.09997	.86322		43 46 10	3.8367	.01530	.94992	
42 55 2	23.3864	.09998	.86322		43 47 9	3.9167	.01725	.94993	
42 56 1	25.7727	.09999	.86322		43 48 8	4.0303	.01930	.94997	
43 0 59	28.4055	.09999	.86322		43 49 7	4.1758	.02144	.94997	
43 1 58	31.2045	.09999	.86322		43 50 6	4.3488	.02367	.94999	
43 2 57	34.1864	.09999	.86322		43 51 5	4.5488	.02600	.94998	
43 3 56	37.3455	.09999	.86322		43 52 4	4.7758	.02844	.94993	
43 4 55	40.6864	.09999	.86322		43 53 3	5.0303	.03100	.94997	
43 5 54	44.2045	.09999	.86322		43 54 2	5.3030	.03367	.94998	
43 6 53	47.8864	.09999	.86322		43 55 1	5.5850	.03644	.94999	
43 7 52	51.7277	.09999	.86322		43 56 0	5.8850	.03930	.94999	
43 8 51	55.7277	.09999	.86322		43 57 0	6.2000	.04222	.94999	
43 9 50	59.8864	.09999	.86322		43 58 0	6.5303	.04521	.94999	
43 10 49	64.2045	.09999	.86322		43 59 0	6.8758	.04825	.94999	
43 11 48	68.6864	.09999	.86322		43 60 0	7.2358	.05134	.94999	
43 12 47	73.3455	.09999	.86322		43 61 0	7.6100	.05448	.94999	
43 13 46	78.1864	.09999	.86322		43 62 0	8.0000	.05767	.94999	
43 14 45	83.2045	.09999	.86322		43 63 0	8.4030	.06090	.94999	
43 15 44	88.4055	.09999	.86322		43 64 0	8.8188	.06417	.94999	
43 16 43	93.7864	.09999	.86322		43 65 0	9.2467	.06748	.94999	
43 17 42	99.3455	.09999	.86322		43 66 0	9.6867	.07082	.94999	
43 18 41	105.0864	.09999	.86322		43 67 0	10.1388	.07419	.94999	
43 19 40	111.0000	.09999	.86322		43 68 0	10.6030	.07759	.94999	
43 20 39	117.0864	.09999	.86322		43 69 0	11.0788	.08099	.94999	
43 21 38	123.3455	.09999	.86322		43 70 0	11.5650	.08440	.94999	
43 22 37	129.7864	.09999	.86322		43 71 0	12.0618	.08782	.94999	
43 23 36	136.4055	.09999	.86322		43 72 0	12.5692	.09125	.94999	
43 24 35	143.2045	.09999	.86322		43 73 0	13.0872	.09469	.94999	
43 25 34	150.1864	.09999	.86322		43 74 0	13.6158	.09814	.94999	
43 26 33	157.3455	.09999	.86322		43 75 0	14.1550	.10160	.94999	
43 27 32	164.6864	.09999	.86322		43 76 0	14.7048	.10507	.94999	
43 28 31	172.2045	.09999	.86322		43 77 0	15.2652	.10855	.94999	
43 29 30	179.8864	.09999	.86322		43 78 0	15.8362	.11204	.94999	
43 30 29	187.7277	.09999	.86322		43 79 0	16.4178	.11554	.94999	
43 31 28	195.7277	.09999	.86322		43 80 0	17.0100	.11905	.94999	
43 32 27	203.8864	.09999	.86322		43 81 0	17.6128	.12257	.94999	
43 33 26	212.2045	.09999	.86322		43 82 0	18.2268	.12610	.94999	
43 34 25	220.7864	.09999	.86322		43 83 0	18.8520	.12964	.94999	
43 35 24	229.5277	.09999	.86322		43 84 0	19.4882	.13319	.94999	
43 36 23	238.4300	.09999	.86322		43 85 0	20.1355	.13675	.94999	
43 37 22	247.4945	.09999	.86322		43 86 0	20.7938	.14032	.94999	
43 38 21	256.7200	.09999	.86322		43 87 0	21.4630	.14390	.94999	
43 39 20	266.1055	.09999	.86322		43 88 0	22.1432	.14749	.94999	
43 40 19	275.6500	.09999	.86322		43 89 0	22.8345	.15109	.94999	
43 41 18	285.3545	.09999	.86322		43 90 0	23.5368	.15470	.94999	
43 42 17	295.2180	.09999	.86322		43 91 0	24.2500	.15832	.94999	
43 43 16	305.2405	.09999	.86322		43 92 0	24.9742	.16195	.94999	
43 44 15	315.4220	.09999	.86322		43 93 0	25.7095	.16559	.94999	
43 45 14	325.7625	.09999	.86322		43 94 0	26.4558	.16924	.94999	
43 46 13	336.2620	.09999	.86322		43 95 0	27.2130	.17290	.94999	
43 47 12	346.9205	.09999	.86322		43 96 0	27.9812	.17657	.94999	
43 48 11	357.7380	.09999	.86322		43 97 0	28.7605	.18025	.94999	
43 49 10	368.7145	.09999	.86322		43 98 0	29.5508	.18394	.94999	
43 50 9	379.8500	.09999	.86322		43 99 0	30.3522	.18764	.94999	
43 51 8	391.1445	.09999	.86322		43 100 0	31.1647	.19135	.94999	
43 52 7	402.5980	.09999	.86322						
43 53 6	414.2105	.09999	.86322						
43 54 5	425.9820	.09999	.86322						
43 55 4	437.9125	.09999	.86322						
43 56 3	449.9920	.09999	.86322						
43 57 2	462.2205	.09999	.86322						
43 58 1	474.6080	.09999	.86322						
43 59 0	487.1545	.09999	.86322						
43 60 0	500.8600	.09999	.86322						
43 61 0	514.7245	.09999	.86322						
43 62 0	528.7480	.09999	.86322						
43 63 0	542.9305	.09999	.86322						
43 64 0	557.2720	.09999	.86322						
43 65 0	571.7725	.09999	.86322						
43 66 0	586.4320	.09999	.86322						
43 67 0	601.2505	.09999	.86322						
43 68 0	616.2280	.09999	.86322						
43 69 0	631.3645	.09999	.86322						
43 70 0	646.6600	.09999	.86322						
43 71 0	662.1145	.09999	.86322						
43 72 0	677.7280	.09999	.86322						
43 73 0	693.5005	.09999	.86322						
43 74 0	709.4320	.09999	.86322						
43 75 0	725.5235	.09999	.86322						
43 76 0	741.7750	.09999	.86322						
43 77 0	758.1865	.09999	.86322						
43 78 0	774.7580	.09999	.86322						
43 79 0	791.4895	.09999	.86322						
43 80 0	808.3810	.09999	.86322						
43 81 0	825.4325	.09999	.86322						
43 82 0	842.6440	.09999	.86322						
43 83 0	860.0155	.09999	.86322						
43 84 0	877.5470	.09999	.86322						
43 85 0	895.2385	.09999	.86322						
43 86 0	913.0900	.09999	.86322						
43 87 0	931.1015	.09999	.86322						
43 88 0	949.2730	.09999	.86322						
43 89 0	967.6045	.09999	.86322						
43 90 0	986.0960	.09999	.86322						
43 91 0	1004.7475	.09999	.86322						
43 92 0	1023.5590	.09999	.86322						
43 93 0	1042.5305	.09999	.86322						
43 94 0	1061.6620	.09999	.86322						
43 95 0	1080.9535	.09999	.86322						

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TABLE C

CHI SQUARE - P(1/3), P(4/9), P(2/9) N=99

U	V	W	X2	P(A) CUM P(C)	U	V	W	X2	P(A) CUM P(C)
49	37	13	12.5530	.00000 .99985	50	36	13	13.8939	.00001 .99913
49	38	12	13.1212	.00002 .99988	50	37	12	14.4167	.00001 .99926
49	39	11	13.8258	.00001 .99998	50	38	11	15.0758	.00001 .99950
49	40	10	14.6667	.00001 .99999	50	39	10	15.8712	.00000 .99966
49	41	9	15.6439	.00000 .99996	50	40	9	16.8030	.00000 .99977
49	42	8	16.7576	.00000 .99975	50	41	8	17.8712	.00000 .99986
49	43	7	18.0076	.00000 .99987	50	42	7	19.0758	.00000 .99992
49	44	6	19.3939	.00000 .99993	50	43	6	20.4167	.00000 .99996
49	45	5	20.9167	.00000 .99996	50	44	5	21.8939	.00000 .99998
49	46	4	22.5758	.00000 .99998	50	45	4	23.5076	.00000 .99998
49	47	3	24.3712	.00000 .99999	50	46	3	25.2576	.00000 .99999
49	48	2	26.3030	.00000 .99999	50	47	2	27.1439	.00000 .99999
49	49	1	28.3712	.00000 .99999	50	48	1	29.1667	.00000 .99999
49	50	0	30.8758	.00000 .99999	50	49	0	31.3258	.00000 .99999
50	0	49	85.8939	.00000 .99999	51	0	48	84.5455	.00000 .99999
50	1	48	81.5076	.00000 .99999	51	1	47	80.2530	.00000 .99999
50	2	47	77.2576	.00000 .99999	51	2	46	76.0909	.00000 .99999
50	3	46	73.1439	.00000 .99999	51	3	45	72.0662	.00000 .99999
50	4	45	69.1667	.00000 .99999	51	4	44	68.1818	.00000 .99999
50	5	44	65.3258	.00000 .99999	51	5	43	64.4318	.00000 .99999
50	6	43	61.6212	.00000 .99999	51	6	42	60.8182	.00000 .99999
50	7	42	58.0530	.00000 .99999	51	7	41	57.3409	.00000 .99999
50	8	41	54.6212	.00000 .99999	51	8	40	54.0000	.00000 .99999
50	9	40	51.3258	.00000 .99999	51	9	39	50.7955	.00000 .99999
50	10	39	48.1667	.00000 .99999	51	10	38	47.7273	.00000 .99999
50	11	38	45.1439	.00000 .99999	51	11	37	44.7955	.00000 .99999
50	12	37	42.2576	.00000 .99999	51	12	36	42.0000	.00000 .99999
50	13	36	39.5076	.00000 .99999	51	13	35	39.3409	.00000 .99999
50	14	35	36.8939	.00000 .99999	51	14	34	36.8182	.00000 .99999
50	15	34	34.4167	.00000 .99999	51	15	33	34.4318	.00000 .99999
50	16	33	32.0758	.00000 .99999	51	16	32	32.1818	.00000 .99999
50	17	32	29.8712	.00000 .99999	51	17	31	30.0662	.00000 .99999
50	18	31	27.8030	.00000 .99999	51	18	30	28.0909	.00000 .99999
50	19	30	25.8712	.00000 .99999	51	19	29	26.2500	.00000 .99999
50	20	29	24.0758	.00000 .99999	51	20	28	24.5455	.00000 .99999
50	21	28	22.4167	.00000 .99999	51	21	27	22.9773	.00000 .99999
50	22	27	20.8939	.00000 .99999	51	22	26	21.5455	.00000 .99999
50	23	26	19.5076	.00000 .99999	51	23	25	20.2500	.00000 .99999
50	24	25	18.2576	.00000 .99999	51	24	24	19.0909	.00000 .99999
50	25	24	17.1439	.00000 .99999	51	25	23	18.0662	.00000 .99999
50	26	23	16.1667	.00000 .99999	51	26	22	17.1818	.00000 .99999
50	27	22	15.3258	.00000 .99999	51	27	21	16.4318	.00000 .99999
50	28	21	14.6212	.00001 .99999	51	28	20	15.8182	.00000 .99999
50	29	20	14.0530	.00001 .99999	51	29	19	15.3409	.00001 .99999
50	30	19	13.6212	.00001 .99999	51	30	18	15.0000	.00001 .99999
50	31	18	13.3258	.00002 .99999	51	31	17	14.7955	.00001 .99999
50	32	17	13.1667	.00002 .99999	51	32	16	14.7273	.00001 .99999
50	33	16	13.1439	.00002 .99999	51	33	15	14.7955	.00001 .99999
50	34	15	13.2576	.00002 .99999	51	34	14	15.0000	.00001 .99999
50	35	14	13.5076	.00002 .99999	51	35	13	15.3409	.00001 .99999

(25)

TABLE C

U	V	W	X2	P(A) CUM P(C)	U	V	W	X2	P(A) CUM P(C)
51	36	12	15.8182	.00000 .99965	52	37	10	18.5985	.00000 .99998
51	37	11	16.4318	.00000 .99972	52	38	9	19.4394	.00000 .99999
51	38	10	17.1818	.00000 .99983	52	39	8	20.4167	.00000 .99999
51	39	9	18.0662	.00000 .99987	52	40	7	21.5503	.00000 .99997
51	40	8	19.0909	.00000 .99992	52	41	6	22.7803	.00000 .99996
51	41	7	20.2500	.00000 .99995	52	42	5	24.1667	.00000 .99999
51	42	6	21.5455	.00000 .99997	52	43	4	25.6894	.00000 .99999
51	43	5	22.9773	.00000 .99998	52	44	3	27.3409	.00000 .99999
51	44	4	24.5455	.00000 .99999	52	45	2	29.1439	.00000 .99999
51	45	3	26.2500	.00000 .99999	52	46	1	31.0758	.00000 .99999
51	46	2	28.0909	.00000 .99999	52	47	0	33.1439	.00000 .99999
51	47	1	30.0662	.00000 .99999	53	0	46	82.3030	.00000 .99999
51	48	0	32.1818	.00000 .99999	53	1	45	78.1894	.00000 .99999
52	0	47	83.3485	.00000 .99999	53	2	44	74.2121	.00000 .99999
52	1	46	79.1439	.00000 .99999	53	3	43	70.3712	.00000 .99999
52	2	45	75.0758	.00000 .99999	53	4	42	66.6667	.00000 .99999
52	3	44	71.1439	.00000 .99999	53	5	41	63.0909	.00000 .99999
52	4	43	67.3485	.00000 .99999	53	6	40	59.6667	.00000 .99999
52	5	42	63.6894	.00000 .99999	53	7	39	56.3712	.00000 .99999
52	6	41	60.1667	.00000 .99999	53	8	38	53.2121	.00000 .99999
52	7	40	56.7803	.00000 .99999	53	9	37	50.1894	.00000 .99999
52	8	39	53.5303	.00000 .99999	53	10	36	47.3030	.00000 .99999
52	9	38	50.4167	.00000 .99999	53	11	35	44.5530	.00000 .99999
52	10	37	47.4394	.00000 .99999	53	12	34	41.9394	.00000 .99999
52	11	36	44.5985	.00000 .99999	53	13	33	39.4621	.00000 .99999
52	12	35	41.8939	.00000 .99999	53	14	32	37.1212	.00000 .99999
52	13	34	39.3258	.00000 .99999	53	15	31	34.9167	.00000 .99999
52	14	33	36.8939	.00000 .99999	53	16	30	32.8485	.00000 .99999
52	15	32	34.5985	.00000 .99999	53	17	29	30.9167	.00000 .99999
52	16	31	32.4394	.00000 .99999	53	18	28	29.1212	.00000 .99999
52	17	30	30.4167	.00000 .99999	53	19	27	27.4621	.00000 .99999
52	18	29	28.5303	.00000 .99999	53	20	26	25.9394	.00000 .99999
52	19	28	26.7803	.00000 .99999	53	21	25	24.5530	.00000 .99999
52	20	27	25.1667	.00000 .99999	53	22	24	23.3030	.00000 .99999
52	21	26	23.6894	.00000 .99999	53	23	23	22.1894	.00000 .99999
52	22	25	22.3485	.00000 .99999	53	24	22	21.2121	.00000 .99999
52	23	24	21.1439	.00000 .99999	53	25	21	20.3712	.00000 .99999
52	24	23	20.0758	.00000 .99999	53	26	20	19.6667	.00000 .99999
52	25	22	19.1439	.00000 .99999	53	27	19	19.0985	.00000 .99999
52	26	21	18.3485	.00000 .99999	53	28	18	18.6667	.00000 .99999
52	27	20	17.6894	.00000 .99999	53	29	17	18.3712	.00000 .99999
52	28	19	17.1667	.00000 .99999	53	30	16	18.2121	.00000 .99999
52	29	18	16.7803	.00000 .99999	53	31	15	18.1894	.00000 .99999
52	30	17	16.5303	.00000 .99999	53	32	14	18.3030	.00000 .99999
52	31	16	16.4167	.00000 .99999	53	33	13	18.5530	.00000 .99999
52	32	15	16.4394	.00000 .99999	53	34	12	18.9394	.00000 .99999
52	33	14	16.5985	.00000 .99999	53	35	11	19.4621	.00000 .99999
52	34	13	16.8939	.00000 .99999	53	36	10	20.1212	.00000 .99999
52	35	12	17.3258	.00000 .99999	53	37	9	20.9167	.00000 .99999
52	36	11	17.8939	.00000 .99999	53	38	8	21.8485	.00000 .99999

(26)

TABLE C

CHI SQUARE - P(1/3), P(4/9), P(2/9) N=99

U	V	W	X2	P(A)	CUM P(C)
53	39	7	22.9167	.00000	.99998
53	40	6	24.1212	.00000	.99999
53	41	5	25.4621	.00000	.99999
53	42	4	26.9394	.00000	.99999
53	43	3	28.5530	.00000	.99999
53	44	2	30.3030	.00000	.99999
53	45	1	32.1894	.00000	.99999
53	46	0	34.2121	.00000	.99999
54	0	45	81.4091	.00000	.99999
54	1	44	77.3864	.00000	.99999
54	2	43	73.5000	.00000	.99999
54	3	42	69.7500	.00000	.99999
54	4	41	66.1364	.00000	.99999
54	5	40	62.6591	.00000	.99999
54	6	39	59.3182	.00000	.99999
54	7	38	56.1136	.00000	.99999
54	8	37	53.0455	.00000	.99999
54	9	36	50.1136	.00000	.99999
54	10	35	47.3182	.00000	.99999
54	11	34	44.6591	.00000	.99999
54	12	33	42.1364	.00000	.99999
54	13	32	39.7500	.00000	.99999
54	14	31	37.5000	.00000	.99999
54	15	30	35.3864	.00000	.99999
54	16	29	33.4091	.00000	.99999
54	17	28	31.5682	.00000	.99999
54	18	27	29.8636	.00000	.99999
54	19	26	28.2955	.00000	.99999
54	20	25	26.8636	.00000	.99999
54	21	24	25.5682	.00000	.99999
54	22	23	24.4091	.00000	.99999
54	23	22	23.3864	.00000	.99998
54	24	21	22.5000	.00000	.99998
54	25	20	21.7500	.00000	.99997
54	26	19	21.1364	.00000	.99997
54	27	18	20.6591	.00000	.99996
54	28	17	20.3182	.00000	.99996
54	29	16	20.1136	.00000	.99995
54	30	15	20.0455	.00000	.99995
54	31	14	20.0136	.00000	.99995
54	32	13	20.0182	.00000	.99996
54	33	12	20.0591	.00000	.99996
54	34	11	21.1364	.00000	.99997
54	35	10	21.7500	.00000	.99997



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TABLE D

CHE SQUARE - P(01/33), P(14/9), P(22/9) N=99

U	V	W	X2	P(A) CUM P(D)	U	V	W	X2	P(A) CUM P(D)
33 44 22	4.5630	0.0080	0.0080		35 46 18	.9394	0.0564	0.6228	
32 45 22	0.5530	0.0139	0.0139		34 47 18	.9621	0.0560	0.6788	
33 45 21	0.6682	0.0060	0.0259		30 49 27	0.0227	0.7551	0.3730	
34 43 22	0.5530	0.0054	0.3453		29 45 25	.9167	0.0549	0.3789	
34 44 21	0.7584	0.0054	0.4307		31 42 26	.9394	0.0544	0.3643	
32 44 23	0.7584	0.0041	0.0518		1.0227	0.0541	0.6974		
33 43 23	0.6682	0.0041	0.0509		32 41 26	.9621	0.0534	0.3909	
32 44 21	0.6682	0.0023	0.0612		31 49 19	1.0905	0.0533	0.0843	
33 43 21	0.6682	0.0005	0.7417		1.0909	0.0529	0.0572		
34 42 23	0.6682	0.0079	0.0415		29 49 21	1.0905	0.0525	0.1097	
31 45 23	0.6682	0.0079	0.0912		30 43 26	1.0227	0.0523	0.1620	
31 46 22	0.2121	0.0079	0.1010		36 39 24	1.0227	0.0511	0.2131	
35 45 20	0.2348	0.0079	0.1067		30 41 29	1.1439	0.0509	0.2640	
33 42 22	0.2121	0.0078	0.1159		33 40 26	1.0909	0.0499	0.3139	
33 46 24	0.2727	0.0078	0.1237		37 39 23	1.0905	0.0497	0.3636	
32 43 24	0.2348	0.0071	0.1315		30 40 21	1.1667	0.0497	0.4133	
33 44 20	0.3030	0.0078	0.1391		37 44 14	1.2121	0.0493	0.4626	
33 44 24	0.2727	0.0074	0.1467		28 48 23	1.1667	0.0491	0.5118	
31 44 24	0.3030	0.0078	0.1549		28 47 24	1.1439	0.0491	0.5609	
31 47 21	0.3712	0.0074	0.1616		35 39 25	1.0905	0.0491	0.6100	
32 47 20	0.4167	0.0073	0.1691		38 42 19	1.2576	0.0485	0.6585	
35 44 21	0.4091	0.0071	0.1762		29 44 26	1.2121	0.0476	0.7060	
33 41 23	0.3712	0.0070	0.1830		32 49 18	1.3254	0.0475	0.7535	
30 46 23	0.4491	0.0071	0.1905		28 46 25	1.2576	0.0462	0.7997	
35 43 24	0.4775	0.0074	0.1976		28 49 22	1.3254	0.0461	0.8458	
33 47 22	0.4775	0.0071	0.2046		30 39 22	1.3254	0.0452	0.8910	
34 41 24	0.4167	0.0068	0.2161		30 50 19	1.5000	0.0441	0.9351	
34 46 19	0.5365	0.0063	0.2184		29 50 20	1.4848	0.0441	0.9792	
35 41 22	0.4775	0.0068	0.2254		34 39 26	1.3254	0.0440	0.5032	
30 45 24	0.4775	0.0067	0.2329		35 47 17	1.4621	0.0432	0.5964	
35 45 19	0.5530	0.0063	0.2312		38 43 18	1.5076	0.0428	0.5109	
35 47 19	0.6136	0.0068	0.2450		31 41 27	1.4621	0.0423	0.5316	
32 42 25	0.5530	0.0063	0.2524		36 46 17	1.5000	0.0423	0.5139	
31 43 25	0.5530	0.0068	0.2592		34 48 17	1.3303	0.0420	0.5239	
31 48 24	0.5667	0.0065	0.2655		30 42 27	1.5000	0.0417	0.5276	
30 48 21	0.6818	0.0063	0.2719		28 45 26	1.5076	0.0409	0.5318	
34 44 19	0.6818	0.0060	0.2783		32 48 27	1.5193	0.0407	0.5391	
33 41 25	0.6136	0.0063	0.2871		28 50 21	1.6212	0.0406	0.5397	
33 44 25	0.6818	0.0061	0.2909		31 50 14	1.6667	0.0405	0.5482	
37 42 20	0.7576	0.0061	0.2970		37 38 24	1.8848	0.0404	0.5806	
37 41 21	0.7576	0.0061	0.3031		39 40 20	1.6364	0.0401	0.5520	
36 40 23	0.6818	0.0061	0.3093		36 38 25	1.5000	0.0399	0.5560	
35 41 24	0.6667	0.0061	0.3154		37 45 17	1.6439	0.0395	0.5601	
32 48 19	0.8050	0.0061	0.3215		39 41 19	1.7045	0.0391	0.5639	
29 47 23	0.7576	0.0061	0.3276		33 49 17	1.7045	0.0389	0.5678	
29 46 24	0.7576	0.0057	0.3364		29 43 27	1.6439	0.0387	0.5718	
28 46 22	0.8485	0.0050	0.3398		38 38 23	1.6212	0.0383	0.5751	
31 40 25	0.8050	0.0057	0.3452		27 48 24	1.6364	0.0382	0.5793	
37 40 22	0.8485	0.0057	0.3523		39 39 21	1.7045	0.0382	0.5835	
37 43 19	0.9167	0.0057	0.3564		27 49 23	1.7045	0.0374	0.5869	

(1)

TABLE D

U	V	W	X2	P(A) CUM P(D)	U	V	W	X2	P(A) CUM P(D)
33 39 27	1.7045	0.0037	0.5960		32 31 16	2.7803	0.0022	0.7576	
35 38 26	1.6667	0.0036	0.5928		30 32 17	2.8636	0.0027	0.7593	
27 47 25	1.7045	0.0036	0.5979		27 44 28	2.7273	0.0027	0.7421	
39 42 16	1.9091	0.0034	0.6014		34 36 25	2.6212	0.0024	0.7443	
38 44 17	1.8939	0.0030	0.6049		26 46 27	2.7121	0.0021	0.7455	
29 31 19	2.0076	0.0034	0.6085		30 38 29	2.8636	0.0021	0.7476	
27 56 22	1.9091	0.0034	0.6119		41 39 19	2.9167	0.0020	0.7506	
32 58 17	1.9848	0.0032	0.6153		37 36 26	2.6667	0.0021	0.7531	
28 44 27	1.8939	0.0030	0.6187		34 37 28	2.7803	0.0021	0.7551	
39 38 22	1.9091	0.0039	0.6221		39 36 24	2.7273	0.0021	0.7576	
28 31 28	2.0530	0.0034	0.6254		41 31 29	2.9167	0.0021	0.7592	
27 46 26	1.9091	0.0032	0.6287		41 38 20	2.9394	0.0021	0.7617	
30 31 18	2.1136	0.0029	0.6320		31 39 29	2.9167	0.0021	0.7639	
34 38 27	1.9848	0.0031	0.6353		40 40 18	3.0303	0.0020	0.7659	
30 41 28	2.1136	0.0032	0.6385		26 52 21	2.9848	0.0020	0.7685	
31 48 20	2.1212	0.0031	0.6415		36 48 15	2.8636	0.0020	0.7709	
37 37 25	2.0076	0.0030	0.6452		35 49 15	2.9167	0.0020	0.7720	
35 48 16	2.1212	0.0030	0.6479		36 36 27	2.8636	0.0020	0.7749	
36 47 16	2.1136	0.0030	0.6505		37 47 15	2.9167	0.0019	0.7767	
38 37 24	2.0530	0.0030	0.6536		28 42 29	3.0758	0.0019	0.7786	
40 39 28	2.2348	0.0031	0.6564		32 38 29	3.0758	0.0019	0.7801	
40 41 18	2.2576	0.0030	0.6598		25 49 25	2.9167	0.0019	0.7816	
29 42 28	2.2121	0.0029	0.6626		25 50 24	2.9394	0.0019	0.7830	
27 31 21	2.2508	0.0027	0.6654		41 37 21	3.0985	0.0019	0.7855	
39 43 17	2.2508	0.0029	0.6686		40 36 23	2.9848	0.0019	0.7879	
37 46 16	2.2121	0.0029	0.6715		40 43 16	3.1439	0.0019	0.7896	
34 49 16	2.2348	0.0029	0.6744		31 52 16	3.2121	0.0017	0.7915	
36 37 26	2.1136	0.0029	0.6773		34 50 15	3.0758	0.0017	0.7931	
32 39 28	2.2348	0.0029	0.6802		28 53 18	3.3258	0.0014	0.7956	
31 51 17	2.3712	0.0028	0.6832		38 46 15	3.0758	0.0014	0.7970	
27 45 27	2.2508	0.0028	0.6859		41 41 17	3.2863	0.0014	0.7994	
26 49 24	2.2348	0.0028	0.6887		25 48 26	3.0303	0.0013	0.8007	
39 37 23	2.2508	0.0028	0.6915		25 51 23	3.0985	0.0013	0.8026	
40 38 21	2.3485	0.0027	0.6944		26 52 28	3.1439	0.0012	0.8042	
26 41 17	2.1167	0.0027	0.6971		34 39 29	3.3099	0.0011	0.8059	
26 48 23	2.2576	0.0025	0.6998		27 43 29	3.3849	0.0012	0.8075	
26 50 23	2.3485	0.0027	0.7025		25 53 17	3.4621	0.0012	0.8092	
28 43 16	2.4167	0.0026	0.7052		35 36 28	3.2121	0.0011	0.8118	
38 45 16	2.4167	0.0026	0.7079		33 37 29	3.3849	0.0011	0.8137	
33 50 16	2.4545	0.0024	0.7105		33 51 15	3.3849	0.0016	0.8162	
35 37 27	2.3712	0.0025	0.7131		41 36 22	3.3939	0.0013	0.8176	
33 38 28	2.4545	0.0025	0.7157		25 47 27	3.2863	0.0013	0.8199	
26 52 19	2.6212	0.0025	0.7182		26 53 20	3.5076	0.0013	0.8179	
26 47 26	2.4167	0.0024	0.7208		39 45 15	3.3849	0.0013	0.8215	
29 52 18	2.6667	0.0023	0.7235		25 52 22	3.3939	0.0012	0.8227	
26 51 22	2.5985	0.0023	0.7257		39 55 25	3.3849	0.0015	0.8242	
40 37 22	2.5985	0.0021	0.7281		38 36 26	3.3258	0.0015	0.8257	
27 52 17	2.7273	0.0020	0.7305		42 38 19	3.6818	0.0013	0.8271	
40 42 17	2.7121	0.0023	0.7329		42 39 18	3.7509	0.0014	0.8290	
39 44 16	2.7273	0.0022	0.7352		41 42 16	3.6667	0.0014	0.8349	

(2)

TABLE D

CHE SQUARE - P(01/33), P(14/9), P(22/9) N=99

U	V	W	X2	P(A)	CUM P(D)	U	V	W	X2	P(A)	CUM P(D)
33	39	30	3.7500	0.0047	0.6319	24	47	28	4.2955	0.0097	0.9268
29	44	30	3.7576	0.0047	0.6333	33	52	14	4.3676	0.0096	0.9364
33	53	16	3.7500	0.0046	0.6349	29	39	31	4.7348	0.0095	0.9459
37	35	27	3.4621	0.0046	0.6365	43	36	20	4.6667	0.0094	0.9553
42	37	20	3.7500	0.0046	0.6378	37	39	17	4.7348	0.0094	0.9647
43	35	24	3.5076	0.0046	0.6392	41	34	24	4.3939	0.0093	0.9743
25	44	29	3.7121	0.0041	0.6406	30	38	31	4.7727	0.0093	0.9833
32	32	15	3.7121	0.0040	0.6420	28	40	31	4.8030	0.0092	0.9924
31	38	30	3.8485	0.0039	0.6434	40	45	14	4.4167	0.0092	0.9916
28	41	30	3.8712	0.0039	0.6485	37	34	24	4.3939	0.0091	0.9917
34	36	29	3.7121	0.0038	0.6492	30	54	15	4.7727	0.0086	0.9914
43	44	15	3.7121	0.0037	0.6470	31	37	33	4.6471	0.0085	0.9913
25	46	28	3.6667	0.0037	0.6497	42	42	15	4.7727	0.0085	0.9944
23	53	21	3.4258	0.0035	0.6532	27	41	31	4.9773	0.0084	0.9944
42	40	17	3.9545	0.0034	0.6516	27	55	17	4.9773	0.0083	0.9947
23	50	25	3.6818	0.0033	0.6596	26	54	14	4.9621	0.0083	0.9944
36	35	24	3.7500	0.0028	0.6524	24	54	21	4.7727	0.0083	0.9967
42	36	21	3.9545	0.0028	0.6553	34	35	30	4.7803	0.0083	0.9980
41	35	23	3.4258	0.0028	0.6560	23	51	25	4.9530	0.0081	0.9961
27	54	14	4.2955	0.0027	0.6586	25	44	30	4.8485	0.0081	0.9943
24	51	24	3.7500	0.0027	0.6595	43	35	21	4.9167	0.0081	0.9923
36	49	14	3.7500	0.0025	0.6606	42	34	23	4.7727	0.0080	0.9923
37	48	14	3.7500	0.0025	0.6619	25	54	16	4.9085	0.0080	0.9913
37	48	14	3.7576	0.0025	0.6639	43	50	16	4.9305	0.0080	0.9913
32	37	30	4.2950	0.0024	0.6643	32	53	14	4.7803	0.0079	0.9942
27	42	35	4.2909	0.0023	0.6656	24	46	29	4.7727	0.0079	0.9942
28	54	17	4.1667	0.0023	0.6679	23	52	24	4.6667	0.0078	0.9949
25	54	19	4.1667	0.0021	0.6680	36	34	29	4.7727	0.0077	0.9957
35	50	14	3.8485	0.0020	0.6692	29	55	19	5.0985	0.0076	0.9955
38	47	14	3.8712	0.0018	0.6707	28	55	16	5.1439	0.0076	0.9962
26	52	23	3.9545	0.0017	0.6715	41	44	14	4.8485	0.0075	0.9984
24	48	27	3.9545	0.0013	0.6768	23	49	27	4.7348	0.0074	0.9987
31	53	15	4.1899	0.0011	0.6781	32	36	31	5.1667	0.0073	0.9995
42	41	15	4.1899	0.0011	0.6782	29	52	17	5.2576	0.0072	0.9995
41	43	15	4.1899	0.0011	0.6783	23	53	23	5.9167	0.0071	0.9995
34	51	14	4.2530	0.0010	0.6771	37	49	13	4.7348	0.0071	0.9965
25	45	29	4.1899	0.0009	0.6761	36	50	13	4.7727	0.0070	0.9935
29	54	16	4.3939	0.0008	0.6729	38	44	13	4.8030	0.0069	0.9934
39	46	14	4.9989	0.0006	0.6803	40	33	26	4.9621	0.0067	0.9937
35	35	29	4.1899	0.0006	0.6812	35	51	13	4.9167	0.0066	0.9936
42	35	22	4.2955	0.0005	0.6824	44	37	18	5.5076	0.0066	0.9952
23	54	20	4.3939	0.0005	0.6832	39	33	27	4.9773	0.0066	0.9956
39	34	26	4.9989	0.0005	0.6856	23	48	28	5.0305	0.0065	0.9933
33	36	30	4.3636	0.0004	0.6860	44	36	19	5.5305	0.0064	0.9967
26	44	22	4.9167	0.0003	0.6873	33	32	22	5.0305	0.0064	0.9966
43	33	22	4.9167	0.0003	0.6875	39	36	22	5.3867	0.0063	0.9924
43	34	25	4.1667	0.0002	0.6867	41	33	25	5.0985	0.0063	0.9985
43	37	19	4.9530	0.0002	0.6869	34	47	13	4.9773	0.0063	0.9981
43	38	16	4.5758	0.0002	0.6907	29	55	15	5.4621	0.0063	0.9914
38	34	27	4.1667	0.0001	0.6971	31	54	14	5.3030	0.0063	0.9917



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TABLE D

CHE SQUARE = P(1/3), P(4/3), P(2/2) N=99

U	V	W	X2	PIA3 CUM PID3	U	V	W	X2	PIA3 CUM PID3
36 33 32	7.3258	.00025	.97253	36 32 11	7.2273	.00016	.98244		
31 43 33	7.6439	.00025	.97253	30 35 34	8.6591	.00016	.98244		
21 54 24	6.8182	.00025	.97253	40 48 11	7.5485	.00015	.98275		
33 54 12	6.8182	.00024	.97387	37 31 31	8.0876	.00015	.98291		
41 31 17	5.9167	.00024	.97387	22 45 32	8.2348	.00015	.98386		
45 35 18	7.6894	.00024	.97387	35 53 11	7.4421	.00015	.98386		
46 36 17	7.7121	.00024	.97387	25 48 34	8.4445	.00015	.98335		
21 54 20	6.8182	.00024	.97402	45 41 13	8.2500	.00015	.98350		
30 56 13	7.2273	.00024	.97426	31 56 12	7.9394	.00015	.98365		
36 32 31	7.2273	.00023	.97449	27 58 14	8.4545	.00015	.98380		
40 31 20	6.9621	.00023	.97472	46 32 21	8.4394	.00015	.98394		
42 31 26	7.6227	.00023	.97495	23 43 33	8.5530	.00015	.98409		
28 57 14	7.5076	.00023	.97518	20 53 24	7.6894	.00014	.98423		
32 34 32	7.8030	.00022	.97540	45 31 23	8.2530	.00014	.98438		
45 34 19	7.8032	.00022	.97562	46 39 14	8.5985	.00014	.98452		
45 37 16	7.8712	.00022	.97584	20 52 27	7.7121	.00014	.98466		
23 44 32	7.5758	.00022	.97606	31 34 34	8.9394	.00014	.98480		
42 45 12	7.6227	.00022	.97628	20 54 25	7.4030	.00014	.98493		
45 45 14	7.6364	.00022	.97649	47 35 17	8.9167	.00014	.98507		
21 55 24	7.1591	.00021	.97671	21 57 21	8.2500	.00014	.98521		
39 31 29	7.1591	.00021	.97692	41 47 11	7.6439	.00014	.98534		
44 42 13	7.4394	.00021	.97714	22 54 19	8.5303	.00013	.98548		
45 31 25	7.2803	.00021	.97734	47 34 18	8.9394	.00013	.98561		
22 44 31	7.4394	.00021	.97755	42 30 27	8.0455	.00013	.98574		
21 49 29	7.1591	.00020	.97776	41 30 28	8.0353	.00013	.98587		
45 34 22	7.6364	.00020	.97796	40 51 28	7.8712	.00013	.98600		
24 44 33	8.4455	.00020	.97816	21 47 31	8.2500	.00013	.98613		
22 57 27	7.6894	.00020	.97835	47 36 16	8.0303	.00013	.98626		
32 55 12	7.3258	.00019	.97855	54 54 11	7.8030	.00013	.98639		
25 56 16	8.4323	.00019	.97874	44 43 12	8.2348	.00013	.98652		
24 37 34	8.4157	.00019	.97893	20 55 24	8.0530	.00013	.98665		
24 56 17	8.4455	.00019	.97911	40 30 29	8.1667	.00012	.98677		
45 33 20	8.4455	.00019	.97931	31 36 26	8.2121	.00012	.98690		
27 38 34	7.3258	.00018	.97949	34 32 13	8.4394	.00012	.98702		
51 31 30	7.5076	.00018	.97967	24 41 24	9.2845	.00012	.98714		
45 38 15	8.1667	.00018	.97986	47 33 14	9.0945	.00012	.98726		
29 36 34	8.4455	.00018	.98004	36 31 32	8.6591	.00012	.98737		
40 31 24	7.6894	.00018	.98022	20 56 29	8.1667	.00011	.98749		
25 58 15	8.1667	.00018	.98039	42 44 11	8.0455	.00011	.98762		
21 56 22	7.6364	.00018	.98057	47 37 15	9.2845	.00011	.98771		
33 34 32	7.9394	.00018	.98074	37 30 30	8.4545	.00011	.98783		
38 51 11	7.6758	.00017	.98092	28 58 13	8.8939	.00011	.98794		
37 51 11	7.8985	.00017	.98109	44 36 25	8.5303	.00011	.98805		
26 39 34	8.5985	.00017	.98126	32 33 34	9.3258	.00011	.98816		
45 45 12	7.5758	.00017	.98144	24 54 16	9.2845	.00011	.98826		
33 33 33	8.2500	.00017	.98161	30 57 12	8.6591	.00011	.98837		
35 49 11	7.1591	.00017	.98177	20 56 25	8.4394	.00011	.98848		
21 48 30	7.6364	.00017	.98194	46 31 22	8.9621	.00011	.98859		
23 58 16	8.2121	.00017	.98211	33 55 11	8.2500	.00011	.98869		
29 57 13	8.0476	.00017	.98227	25 59 15	9.2845	.00011	.98880		

(5)

TABLE D

U	V	W	X2	PIA3 CUM PID3	U	V	W	X2	PIA3 CUM PID3
23 59 17	9.2803	.00010	.98890	21 45 33	9.8864	.00007	.99295		
22 44 33	9.1667	.00010	.98902	22 45 34	10.2348	.00007	.99301		
27 37 38	9.8864	.00010	.98913	21 58 21	9.4212	.00007	.99307		
28 36 35	9.8939	.00010	.98920	44 36 15	10.5076	.00006	.99314		
44 48 13	9.1667	.00010	.98930	44 29 26	9.5076	.00006	.99321		
21 54 20	9.8864	.00010	.98940	47 39 13	10.1894	.00006	.99327		
47 32 28	9.3939	.00010	.98950	46 41 12	9.8712	.00006	.99333		
26 38 35	9.9444	.00010	.98959	31 57 11	9.4421	.00006	.99340		
20 49 30	8.5985	.00010	.98969	40 29 30	9.5076	.00006	.99346		
21 46 32	9.8864	.00010	.98978	41 48 10	8.8485	.00006	.99352		
29 35 35	10.0876	.00009	.98988	48 32 19	10.5000	.00006	.99358		
38 30 31	8.8939	.00009	.98997	35 54 10	8.9394	.00006	.99364		
23 42 34	9.6667	.00009	.99006	19 51 29	9.2803	.00006	.99370		
45 42 12	9.8864	.00009	.99015	19 56 24	9.3939	.00006	.99376		
45 30 24	9.8864	.00009	.99024	34 31 34	10.4167	.00006	.99382		
43 45 11	8.5530	.00009	.99034	24 40 15	10.5000	.00006	.99388		
26 59 14	9.5076	.00009	.99043	45 45 10	9.4421	.00006	.99394		
47 38 14	9.6667	.00009	.99051	28 47 32	9.8712	.00006	.99399		
20 57 22	8.9621	.00009	.99061	25 41 35	10.1667	.00006	.99405		
22 59 18	9.5076	.00009	.99069	45 29 25	9.8864	.00006	.99411		
25 39 35	10.1894	.00009	.99077	36 35 35	10.2275	.00005	.99416		
55 31 33	9.4421	.00008	.99086	39 29 31	9.8864	.00005	.99421		
52 56 11	8.8430	.00008	.99094	42 47 10	9.2045	.00005	.99426		
53 32 34	9.8182	.00008	.99102	47 30 22	10.3939	.00005	.99432		
53 34 35	10.2275	.00008	.99110	48 37 14	10.8479	.00005	.99437		
20 48 33	9.1667	.00008	.99118	22 40 17	10.6212	.00005	.99442		
28 51 10	8.4167	.00008	.99126	27 36 36	11.4545	.00005	.99447		
48 34 17	10.2275	.00007	.99133	32 32 35	10.9848	.00005	.99452		
47 31 21	9.8258	.00007	.99141	25 40 18	10.6667	.00005	.99458		
29 58 12	9.4444	.00007	.99148	34 55 10	9.3258	.00005	.99463		
54 50 18	8.4545	.00007	.99155	45 43 11	9.8864	.00005	.99468		
37 52 10	8.4444	.00007	.99163	19 50 30	9.6667	.00005	.99473		
37 30 32	8.9621	.00007	.99171	26 37 36	11.5076	.00005	.99478		
34 32 15	10.2955	.00007	.99177	19 47 25	9.8258	.00005	.99483		
46 30 23	9.6212	.00007	.99184	24 35 36	11.5076	.00005	.99488		
24 40 35	10.5000	.00007	.99192	48 31 20	10.8479	.00005	.99493		
48 33 18	10.2955	.00007	.99199	28 39 12	10.4167	.00005	.99498		
42 29 28	9.2045	.00007	.99206	20 59 20	10.4167	.00005	.99503		
19 53 27	8.9167	.00007	.99213	25 35 36	11.6667	.00005	.99507		
19 54 26	8.9394	.00007	.99220	29 34 36	11.6667	.00005	.99512		
44 44 11	9.1667	.00007	.99227	46 29 24	10.4167	.00005	.99516		
27 59 13	9.8864	.00007	.99234	30 58 11	10.2275	.00004	.99521		
40 49 18	8.5985	.00007	.99241	21 44 34	10.9091	.00004	.99525		
45 29 27	9.2045	.00007	.99248	43 46 10	9.6667	.00004	.99529		
36 53 12	8.6591	.00007	.99254	34 29 32	10.4167	.00004	.99534		
41 29 29	9.2045	.00007	.99261	21 48 18	10.3939	.00004	.99538		
31 35 35	10.5530	.00007	.99268	17 56 13	10.9444	.00004	.99542		
19 52 28	9.3258	.00007	.99275	33 56 10	9.8182	.00004	.99546		
21 54 19	9.8864	.00007	.99281	47 40 12	11.4444	.00004	.99550		
19 55 25	9.0985	.00007	.99288	19 49 31	10.1894	.00004	.99555		

(6)

TABLE D

CHE SQUARE = P(1/3), P(4/3), P(2/2) N=99

U	V	W	X2	PIA3 CUM PID3	U	V	W	X2	PIA3 CUM PID3
22 42 35	11.4394	.00004	.99559	48 39 12	11.9318	.00003	.99720		
23 46 32	11.7121	.00004	.99563	45 44 10	10.9891	.00003	.99723		
19 56 22	10.3939	.00004	.99567	41 49 9	10.1894	.00003	.99728		
24 39 16	11.9318	.00004	.99571	18 51 30	10.8409	.00003	.99728		
29 34 16	11.6667	.00004	.99574	36 54 9	10.2275	.00003	.99731		
49 33 17	11.6439	.00004	.99578	27 35 37	13.1591	.00003	.99733		
35 30 34	11.1212	.00004	.99582	26 36 37	13.1667	.00003	.99736		
48 38 13	11.3182	.00004	.99586	21 61 17	12.0682	.00002	.99738		
35 33 36	11.9318	.00004	.99590	48 29 22	11.9318	.00002	.99741		
35 31 35	11.5227	.00004	.99594	39 28 32	11.4545	.00002	.99743		
40 30 21	11.3182	.00004	.99597	36 29 34	11.9318	.00002	.99746		
45 42 11	10.7121	.00004	.99601	47 41 11	11.6439	.00002	.99748		
45 28 28	10.9848	.00004	.99605	25 61 13	12.1894	.00002	.99750		
49 32 18	11.7576	.00004	.99608	31 58 10	11.1212	.00002	.99753		
49 35 15	11.8258	.00004	.99612	28 34 37	13.2576	.00002	.99755		</

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TABLE D

TABLE D

ONE SQUARE - FULL/33, P114/91, P212/91 N999

U	V	W	X2	PIA3 CUM P103	U	V	W	X2	PIA3 CUM P103
35 24 37	15.3469	.00001	.99931	52 30 17	16.5303	.00000	.99957		
23 63 13	14.9167	.00001	.99932	52 33 14	16.5905	.00001	.99958		
19 04 36	14.8885	.00001	.99933	46 42 9	16.5909	.00000	.99959		
41 26 32	15.8885	.00001	.99933	36 27 36	15.7500	.00000	.99959		
20 42 37	15.8394	.00001	.99934	19 43 37	16.1894	.00000	.99959		
51 29 19	15.3409	.00001	.99935	29 29 38	16.7803	.00000	.99959		
23 63 16	14.9621	.00001	.99935	25 63 11	17.6439	.00000	.99960		
47 26 26	16.0303	.00001	.99936	49 26 24	15.3030	.00000	.99960		
17 49 33	15.8258	.00001	.99936	29 31 39	17.6621	.00000	.99961		
47 43 9	13.6639	.00001	.99937	18 05 36	15.7500	.00000	.99961		
15 56 27	15.1667	.00001	.99938	29 61 9	14.7348	.00000	.99961		
15 55 28	15.1439	.00001	.99938	18 51 32	16.9167	.00000	.99962		
30 57 8	14.7803	.00001	.99939	20 43 38	16.9621	.00000	.99962		
19 46 30	14.5809	.00001	.99939	44 25 30	14.7803	.00000	.99962		
40 47 8	12.7803	.00001	.99940	40 25 29	14.7803	.00000	.99963		
37 27 35	14.7348	.00001	.99941	32 39 39	17.6212	.00000	.99963		
18 62 19	14.5909	.00001	.99941	22 59 8	14.0530	.00000	.99963		
14 54 29	13.2576	.00001	.99942	52 29 18	16.7803	.00000	.99964		
15 57 26	13.3258	.00001	.99942	16 60 23	16.6212	.00000	.99964		
53 38 11	13.0758	.00001	.99943	16 63 18	15.7500	.00000	.99964		
53 60 9	13.7727	.00001	.99943	46 65 8	14.0530	.00000	.99965		
31 30 38	16.2121	.00001	.99944	17 62 20	15.3030	.00000	.99965		
24 34 39	15.8939	.00001	.99944	52 34 15	16.8939	.00000	.99965		
23 35 39	16.9167	.00001	.99945	21 64 14	16.3636	.00000	.99966		
29 63 12	15.2895	.00001	.99945	43 25 31	14.9167	.00000	.99966		
51 26 28	15.8182	.00001	.99945	46 25 28	14.9621	.00000	.99967		
40 40 14	14.6667	.00000	.99946	50 39 18	17.7112	.00000	.99967		
27 33 39	15.9775	.00001	.99947	22 64 15	16.4394	.00000	.99967		
21 40 38	16.3636	.00001	.99947	51 37 11	16.4316	.00000	.99967		
16 53 30	13.5076	.00000	.99948	51 64 15	16.4394	.00000	.99968		
14 56 29	13.6212	.00000	.99948	36 26 33	15.8030	.00000	.99968		
17 61 21	16.3712	.00000	.99949	39 53 7	15.1591	.00000	.99968		
29 36 39	17.0555	.00000	.99949	40 52 7	15.1667	.00000	.99968		
49 26 25	14.5909	.00000	.99950	51 27 21	16.4316	.00000	.99969		
19 63 17	15.2895	.00000	.99950	17 67 35	15.6439	.00000	.99969		
51 36 12	15.8182	.00000	.99951	42 25 32	15.2045	.00000	.99969		
50 27 22	15.3258	.00000	.99951	38 54 7	13.2576	.00000	.99970		
55 58 8	15.3636	.00000	.99952	47 25 27	15.2675	.00000	.99970		
28 32 39	17.1667	.00000	.99952	30 30 39	17.6636	.00000	.99970		
51 26 28	15.8182	.00000	.99953	41 51 7	13.2803	.00000	.99970		
43 46 8	15.3636	.00000	.99953	50 26 25	16.1667	.00000	.99971		
42 32 15	16.4394	.00000	.99954	37 55 7	15.6621	.00000	.99971		
52 31 16	16.4167	.00000	.99954	16 50 33	15.0758	.00000	.99971		
14 54 31	15.8939	.00000	.99954	23 64 12	16.6667	.00000	.99972		
17 46 34	16.6667	.00000	.99955	42 50 7	15.0000	.00000	.99972		
23 37 39	17.2803	.00000	.99955	21 39 39	16.0682	.00000	.99972		
27 62 10	15.0000	.00000	.99956	52 28 19	17.1667	.00000	.99972		
39 29 37	16.0758	.00000	.99956	16 61 22	15.3258	.00000	.99973		
14 59 24	14.0750	.00000	.99957	19 64 16	16.6667	.00000	.99973		
39 26 34	15.0000	.00000	.99957	49 41 9	15.6439	.00000	.99973		

(9)

U	V	W	X2	PIA3 CUM P103	U	V	W	X2	PIA3 CUM P103
35 24 37	16.9167	.00000	.99973	36 58 7	14.7121	.00000	.99984		
33 24 36	17.4500	.00000	.99974	53 33 13	16.5530	.00000	.99984		
41 25 33	15.6439	.00000	.99974	50 40 9	16.8030	.00000	.99984		
52 35 12	17.3258	.00000	.99974	34 27 38	16.2348	.00000	.99984		
46 25 26	15.7500	.00000	.99974	45 47 7	14.7803	.00000	.99984		
26 63 10	16.2348	.00000	.99975	39 25 35	16.9775	.00000	.99984		
31 60 8	14.8885	.00000	.99975	15 40 24	15.8182	.00000	.99984		
47 44 8	14.8885	.00000	.99975	50 25 24	17.1639	.00000	.99985		
36 56 7	13.7727	.00000	.99975	29 10 45	19.6667	.00000	.99985		
25 34 40	18.9394	.00000	.99976	45 24 30	16.3636	.00000	.99985		
26 33 40	18.9621	.00000	.99976	15 52 32	15.8182	.00000	.99985		
52 35 12	17.3258	.00000	.99976	38 26 37	17.6636	.00000	.99985		
20 42 9	15.8030	.00000	.99976	32 24 39	16.9809	.00000	.99985		
15 56 26	16.7875	.00000	.99976	26 45 14	16.4532	.00000	.99985		
18 44 37	17.8455	.00000	.99977	21 65 13	16.6682	.00000	.99986		
20 30 40	16.0227	.00000	.99977	46 24 29	16.4394	.00000	.99986		
15 57 27	14.7955	.00000	.99977	44 29 31	16.4394	.00000	.99986		
19 42 38	17.6667	.00000	.99977	53 28 18	16.6667	.00000	.99986		
15 55 29	14.7955	.00000	.99978	16 49 33	16.8030	.00000	.99986		
37 26 36	16.7876	.00000	.99978	27 63 9	16.9775	.00000	.99986		
17 63 19	16.3712	.00000	.99978	25 64 10	17.5788	.00000	.99986		
27 52 40	16.0989	.00000	.99978	47 24 28	16.6667	.00000	.99987		
31 29 39	16.3712	.00000	.99978	18 45 38	16.4775	.00000	.99987		
15 50 28	15.0000	.00000	.99979	43 24 32	16.6667	.00000	.99987		
53 31 15	16.1894	.00000	.99979	17 64 18	17.3758	.00000	.99987		
52 37 7	16.1894	.00000	.99979	21 38 40	19.9891	.00000	.99987		
40 25 34	16.2348	.00000	.99979	19 65 15	16.1894	.00000	.99987		
20 64 11	17.6455	.00000	.99979	22 65 12	16.2348	.00000	.99987		
15 54 30	15.0000	.00000	.99980	53 59 7	15.3409	.00000	.99987		
16 49 34	15.8712	.00000	.99980	53 34 12	16.4394	.00000	.99988		
23 36 40	19.2121	.00000	.99980	16 63 20	17.1639	.00000	.99988		
49 25 28	16.3712	.00000	.99980	17 45 37	16.0076	.00000	.99988		
53 30 16	16.2121	.00000	.99980	15 61 23	16.4316	.00000	.99988		
17 46 36	16.7876	.00000	.99981	19 61 39	19.2803	.00000	.99988		
44 40 7	14.2576	.00000	.99981	46 46 7	15.4394	.00000	.99988		
16 64 17	17.0455	.00000	.99981	52 24 21	15.3685	.00000	.99988		
53 32 14	16.3030	.00000	.99981	48 24 27	17.0455	.00000	.99988		
32 26 22	17.1620	.00000	.99981	15 53 35	16.4316	.00000	.99988		
20 40 39	16.6212	.00000	.99981	42 44 33	17.0455	.00000	.99988		
52 27 28	17.6455	.00000	.99982	36 25 36	17.6712	.00000	.99988		
16 62 21	16.1667	.00000	.99982	49 42 8	16.7576	.00000	.99988		
15 59 25	15.3409	.00000	.99982	38 29 40	20.1136	.00000	.99988		
20 31 40	19.3258	.00000	.99982	29 62 8	16.7576	.00000	.99988		
51 30 18	17.1818	.00000	.99982	51 25 23	16.3682	.00000	.99988		
53 29 17	16.3712	.00000	.99983	53 27 19	19.0985	.00000	.99988		
15 53 31	15.3409	.00000	.99983	16 65 16	16.4775	.00000	.99988		
40 43 8	15.7500	.00000	.99983	52 37 10	16.5985	.00000	.99988		
52 36 11	17.8939	.00000	.99983	23 65 11	16.5530	.00000	.99988		
22 37 40	19.5076	.00000	.99983	25 33 41	21.0985	.00000	.99988		
30 61 8	15.7500	.00000	.99983	24 34 41	21.1364	.00000	.99988		

(10)

TABLE D

TABLE D

ONE SQUARE - FULL/33, P114/91, P212/91 N999

U	V	W	X2	PIA3 CUM P103	U	V	W	X2	PIA3 CUM P103		
49	24	26	17.5758	.00000	.99990	15	65	21	16.0642	.00000	.99994
15	47	36	17.6712	.00000	.99990	18	40	40	21.0303	.00000	.99994
25	52	43	21.1667	.00000	.99990	15	49	35	16.7876	.00000	.99994
51	59	9	18.9882	.00000	.99990	48	44	7	17.0455	.00000	.99994
41	24	34	17.5758	.00000	.99990	14	40	25	17.1667	.00000	.99994
23	39	42	21.4167	.00000	.99990	29	64	15	16.8030	.00000	.99994
32	40	7	18.0758	.00000	.99990	16	46	37	19.0758	.00000	.99994
35	27	39	19.7803	.00000	.99990	31	57	41	21.0884	.00000	.99994
35	26	38	19.1212	.00000	.99991	36	57	8	15.7500	.00000	.99994
17	42	42	17.1818	.00000	.99991	54	55	12	20.5591	.00000	.99994
55	15	15	14.0000	.00000	.99991	19	46	14	16.8885	.00000	.99994
23	35	41	21.0000	.00000	.99991	46	23	38	16.8530	.00000	.99994
47	45	7	18.1894	.00000	.99991	49	25	31	16.2642	.00000	.99994
15	50	34	17.1818	.00000	.99991	21	46	12	19.9011	.00000	.99994
53	35	11	19.4021	.00000	.99991	46	49	6	15.7812	.00000	.99994
55	51	14	20.1136	.00000	.99991	54	27	14	20.8511	.00000	.99994
27	31	41	21.3949	.00000	.99991	51	24	24	19.9929	.00000	.99995
51	29	16	18.1236	.00000	.99991	34	26	39	20.5355	.00000	.99995
43	53	6	16.9921	.00000	.99991	14	53	52	17.3258	.00000	.99995
39	54	6	15.8008	.00000	.99991	47	23	29	16.8996	.00000	.99995
19	57	24	16.9167	.00000	.99992	39	24	36	19.8939	.00000	.99995
11	52	6	15.9335	.00000	.99992	29	49	41	22.7876	.00000	.99995
51	26	40	19.4667	.00000	.99992	44	23	52	16.2346	.00000	.99995
51	26	40	19.4667	.00000	.99992	42	38	10	16.8535	.00000	.99995
19	50	27	16.5353	.00000	.99992	52	38	10	22.3112	.00000	.99995
25	45	9	18.2976	.00000	.99992	52	27	40	21.3554	.00000	.99995
16	46	19	18.5776	.00000	.99992	44	43	24	17.6896	.00000	.99995
37	25	37	18.9167	.00000	.99992	48	23	29	16.8775	.00000	.99995
38	35	9	15.1434	.00000	.99992	36	26	39	20.1136	.00000	.99995
22	36	41	21.5303	.00000	.99992	35	54	6	16.2123	.00000	.99995
54	52	15	20.3142	.00000	.99992	18	46	17	22.0935	.00000	.99995
98	24	25	18.2576	.00000	.99992	43	23	55	19.5558	.00000	.99995
19	55	30	18.5905	.00000	.99992	22	46	11	20.1667	.00000	.99995
49	4	35	15.2045	.00000	.99993	55	45	8	16.3536	.00000	.99995
48	4	35	15.2045	.00000	.99993	55	45	8	16.3536	.00000	.99995
19	42	39	20.0455	.00000	.99993	14	52	35	17.8559	.00000	.99995
17	44	36	19.3039	.00000	.99993	20	39	41	22.3436	.00000	.99995
17	45	17	18.9167	.00000	.99993	53	25	21	20.3712	.00000	.99995
54	48	17	20.3142	.00000	.99993	50	62	7	17.6636	.00000	.99995
19	56	24	16.7803	.00000	.99993	49	23	27	16.9167	.00000	.99995
53	26	29	19.6667	.00000	.99993	51	40	8	19.0000	.00000	.99995
92	25	22	19.1639	.00000	.99993	15	48	36	19.8909	.00000	.99995
98	41	8	17.4712	.00000	.99993	54	34	11	21.1344	.00000	.99995
28	50	41	21.6812	.00000	.99993	49	43	7	16.8076	.00000	.99995
29	56	6	15.3939	.00000	.99995	25	45	9	19.6455	.00000	.99995
29	56	6	15.3939	.00000	.99995	15	44	29	19.8909	.00000	.99995
28	43	8	17.7712	.00000	.99995	42	23	39	19.2727	.00000	.99995
19	59	31	16.9939	.00000	.99995	62	23	39	19.2727	.00000	.99995
49	6	6	15.4866	.00000	.99994	54	26	19	21.3544	.00000	.99995
51	41	7	16.9167	.00000	.99994	24	33	42	23.3664	.00000	.99995



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CHI SQUARE - P(11/3), P(14/9), P(21/9) N=99

U	V	W	X2	P(A)	CUM P(D)	U	V	W	X2	P(A)	CUM P(D)
25 66 8	21.8885	.00000	.99998	51 42 6	21.5455	.00000	.99999	23 68 8	25.8303	.00000	.99999
17 41 41	24.7112	.00000	.99998	23 32 44	28.3030	.00000	.99999	44 51 4	19.5076	.00000	.99999
45 49 5	18.1682	.00000	.99998	24 31 44	28.2955	.00000	.99999	19 36 44	29.3439	.00000	.99999
21 35 43	26.2500	.00000	.99998	34 24 41	25.5363	.00000	.99999	31 25 43	28.3712	.00000	.99999
27 29 43	26.2500	.00000	.99998	17 40 42	26.3030	.00000	.99999	16 69 14	25.8712	.00000	.99999
41 22 36	21.8885	.00000	.99998	39 22 38	25.7273	.00000	.99999	17 39 43	28.3712	.00000	.99999
33 59 5	18.3712	.00000	.99998	24 66 7	22.7121	.00000	.99999	37 58 4	19.6667	.00000	.99999
23 67 9	22.7348	.00000	.99998	32 25 42	26.4167	.00000	.99999	48 20 31	23.5989	.00000	.99999
15 45 39	22.9773	.00000	.99998	25 30 44	28.3939	.00000	.99999	47 20 32	23.5738	.00000	.99999
33 25 41	24.6136	.00000	.99998	22 33 44	28.4167	.00000	.99999	50 44 5	21.8939	.00000	.99999
52 40 7	21.5303	.00000	.99998	43 21 35	22.7348	.00000	.99999	46 20 33	23.7121	.00000	.99999
32 63 6	22.1136	.00000	.99998	48 46 5	20.8455	.00000	.99999	49 20 30	23.7576	.00000	.99999
35 24 43	23.9394	.00000	.99998	36 23 40	25.0227	.00000	.99999	14 18 17	25.1667	.00000	.99999
27 65 7	21.3409	.00000	.99998	51 21 27	22.9773	.00000	.99999	37 22 40	26.1121	.00000	.99999
13 68 12	23.5758	.00000	.99998	22 64 9	24.4394	.00000	.99999	45 50 4	19.9891	.00000	.99999
13 69 42	23.5682	.00000	.99998	26 29 44	28.5985	.00000	.99999	40 21 34	25.1439	.00000	.99999
11 68 13	23.5909	.00000	.99998	21 34 44	28.6364	.00000	.99999	45 20 34	24.0000	.00000	.99999
45 48 5	18.6212	.00000	.99998	14 67 18	23.6894	.00000	.99999	50 20 29	24.0758	.00000	.99999
52 22 45	22.3405	.00000	.99998	54 22 23	24.4091	.00000	.99999	36 59 4	28.1136	.00000	.99999
33 43 6	20.4167	.00000	.99998	18 38 43	27.6818	.00000	.99999	27 66 6	23.7273	.00000	.99999
20 36 43	26.2112	.00000	.99998	32 62 5	20.5303	.00000	.99999	23 31 45	30.9167	.00000	.99999
31 26 42	23.6667	.00000	.99998	30 26 43	27.6818	.00000	.99999	53 48 6	24.1212	.00000	.99999
28 68 11	23.7121	.00000	.99998	42 21 36	23.3864	.00000	.99999	21 69 9	26.2500	.00000	.99999
28 28 43	25.6212	.00000	.99998	15 68 16	24.5455	.00000	.99999	54 21 24	25.5682	.00000	.99999
56 23 22	23.3864	.00000	.99998	52 21 26	23.6894	.00000	.99999	24 30 45	30.9545	.00000	.99999
15 67 17	22.9773	.00000	.99998	28 65 4	22.4167	.00000	.99999	22 32 45	30.9848	.00000	.99999
31 60 5	18.9848	.00000	.99998	27 28 44	28.9051	.00000	.99999	15 69 15	26.2500	.00000	.99999
37 23 39	23.6439	.00000	.99998	36 22 39	24.6939	.00000	.99999	46 49 4	20.4167	.00000	.99999
17 68 14	23.7576	.00000	.99998	49 45 5	24.9167	.00000	.99999	44 20 35	24.4394	.00000	.99999
14 66 19	23.3405	.00000	.99998	20 35 44	28.9621	.00000	.99999	30 64 5	22.5000	.00000	.99999
42 22 37	22.7121	.00000	.99998	18 69 42	25.5682	.00000	.99999	51 70 28	24.5455	.00000	.99999
47 21 31	21.6439	.00000	.99998	52 41 6	22.7803	.00000	.99999	18 37 47	29.9318	.00000	.99999
45 21 32	21.6894	.00000	.99998	41 54 4	18.9394	.00000	.99999	25 29 45	31.0985	.00000	.99999
45 21 30	21.7500	.00000	.99998	40 55 4	18.9621	.00000	.99999	35 60 6	20.6667	.00000	.99999
43 21 33	21.8864	.00000	.99998	19 69 11	25.6439	.00000	.99999	21 33 45	31.1591	.00000	.99999
47 47 5	19.2803	.00000	.99998	42 53 4	18.0227	.00000	.99999	54 23 42	26.2348	.00000	.99999
49 21 29	22.0076	.00000	.99998	17 69 13	25.6439	.00000	.99999	51 43 5	22.9773	.00000	.99999
21 68 16	24.0000	.00000	.99998	39 56 4	19.0909	.00000	.99999	15 42 42	26.0909	.00000	.99999
53 22 43	23.3030	.00000	.99998	41 21 37	24.1894	.00000	.99999	32 24 43	29.1667	.00000	.99999
13 27 43	27.3985	.00000	.99998	16 41 42	27.1439	.00000	.99999	24 21 39	26.2500	.00000	.99999
29 27 43	27.3985	.00000	.99998	15 43 41	26.2500	.00000	.99999	43 20 36	25.0303	.00000	.99999
15 42 41	22.2576	.00000	.99998	43 52 4	19.2121	.00000	.99999	52 20 27	25.1667	.00000	.99999
44 21 34	22.2348	.00000	.99998	33 24 42	27.2727	.00000	.99999	16 40 43	29.1667	.00000	.99999
29 64 6	21.2121	.00000	.99998	38 57 4	19.3258	.00000	.99999	26 28 45	31.3485	.00000	.99999
16 68 15	24.0758	.00000	.99998	35 23 41	26.5530	.00000	.99999	47 48 4	21.0303	.00000	.99999
33 21 28	22.4167	.00000	.99998	31 63 5	21.4621	.00000	.99999	20 34 45	31.4394	.00000	.99999
33 61 5	19.7805	.00000	.99998	53 21 25	24.5530	.00000	.99999	36 22 41	27.6818	.00000	.99999
27 67 8	23.3864	.00000	.99998	25 67 7	24.1894	.00000	.99999	24 68 7	25.7727	.00000	.99999
13 44 40	24.5455	.00000	.99998	20 69 10	25.8712	.00000	.99999	34 61 4	21.3258	.00000	.99999
53 39 7	22.9167	.00000	.99998	28 27 44	29.3258	.00000	.99999				

(13)

U	V	W	X2	P(A)	CUM P(D)	U	V	W	X2	P(A)	CUM P(D)
36 25 44	36.4773	.00000	.99999	18 70 11	27.6818	.00000	.99999	17 70 12	27.6667	.00000	.99999
18 70 11	27.6818	.00000	.99999	22 69 8	26.7803	.00000	.99999	42 20 37	25.7727	.00000	.99999
17 70 12	27.6667	.00000	.99999	14 69 16	26.7833	.00000	.99999	14 69 16	26.7833	.00000	.99999
26 67 13	25.7727	.00000	.99999	17 38 44	30.5758	.00000	.99999	29 65 5	23.6439	.00000	.99999
22 69 8	26.7803	.00000	.99999	53 20 26	25.9394	.00000	.99999	27 27 45	31.7045	.00000	.99999
42 20 37	25.7727	.00000	.99999	26 67 6	25.1439	.00000	.99999	48 47 4	21.7500	.00000	.99999
14 69 16	26.7833	.00000	.99999	19 35 45	31.6258	.00000	.99999	16 70 13	27.4030	.00000	.99999
29 65 5	23.6439	.00000	.99999	19 70 11	27.6818	.00000	.99999	19 70 11	27.6818	.00000	.99999
27 27 45	31.7045	.00000	.99999	38 21 42	27.5076	.00000	.99999	52 42 5	24.1667	.00000	.99999
48 47 4	21.7500	.00000	.99999	33 62 4	22.0939	.00000	.99999	41 23 38	26.6667	.00000	.99999
16 70 13	27.4030	.00000	.99999	33 23 43	30.0682	.00000	.99999	28 26 45	32.1667	.00000	.99999
19 70 11	27.6818	.00000	.99999	28 26 45	32.1667	.00000	.99999	54 20 25	26.8636	.00000	.99999
38 21 42	27.5076	.00000	.99999	15 70 14	28.7949	.00000	.99999	35 22 42	29.3030	.00000	.99999
52 42 5	24.1667	.00000	.99999	38 21 42	27.5076	.00000	.99999	49 46 4	22.5758	.00000	.99999
33 62 4	22.0939	.00000	.99999	41 23 38	26.6667	.00000	.99999	20 70 9	26.1667	.00000	.99999
41 23 38	26.6667	.00000	.99999	28 26 45	32.1667	.00000	.99999	49 19 31	25.6439	.00000	.99999
28 26 45	32.1667	.00000	.99999	54 20 25	26.8636	.00000	.99999	15 41 43	30.0682	.00000	.99999
15 70 14	28.7949	.00000	.99999	35 22 42	29.3030	.00000	.99999	47 19 33	25.6439	.00000	.99999
35 22 42	29.3030	.00000	.99999	49 46 4	22.5758	.00000	.99999	18 36 45	32.3182	.00000	.99999
49 46 4	22.5758	.00000	.99999	20 70 9	26.1667	.00000	.99999	31 24 44	31.2121	.00000	.99999
20 70 9	26.1667	.00000	.99999	49 19 31	25.6439	.00000	.99999	50 19 30	25.8712	.00000	.99999
15 41 43	30.0682	.00000	.99999	15 41 43	30.0682	.00000	.99999	46 19 34	25.8712	.00000	.99999
47 19 33	25.6439	.00000	.99999	16 39 44	31.3258	.00000	.99999	23 30 45	33.6667	.00000	.99999
18 36 45	32.3182	.00000	.99999	32 63 4	22.9621	.00000	.99999	16 39 44	31.3258	.00000	.99999
31 24 44	31.2121	.00000	.99999	22 31 45	33.6894	.00000	.99999	32 63 4	22.9621	.00000	.99999
50 19 30	25.8712	.00000	.99999	28 26 45	32.1667	.00000	.99999	28 26 45	32.1667	.00000	.99999
46 19 34	25.8712	.00000	.99999	24 29 45	33.7500	.00000	.99999	24 29 45	33.7500	.00000	.99999
23 30 45	33.6667	.00000	.99999	23 69 7	27.4621	.00000	.99999	23 69 7	27.4621	.00000	.99999
16 39 44	31.3258	.00000	.99999	45 19 35	26.2500	.00000	.99999	45 19 35	26.2500	.00000	.99999
32 63 4	22.9621	.00000	.99999	37 21 41	28.9167	.00000	.99999	37 21 41	28.9167	.00000	.99999
22 31 45	33.6894	.00000	.99999	21 32 46	33.8182	.00000	.99999	21 32 46	33.8182	.00000	.99999
28 26 45	32.1667	.00000	.99999	40 20 39	27.7121	.00000	.99999	40 20 39	27.7121	.00000	.99999
24 29 45	33.7500	.00000	.99999	53 41 5	25.4621	.00000	.99999	53 41 5	25.4621	.00000	.99999
23 69 7	27.4621	.00000	.99999	25 68 6	26.6667	.00000	.99999	25 68 6	26.6667	.00000	.99999
45 19 35	26.2500	.00000	.99999	29 25 45	32.7348	.00000	.99999	29 25 45	32.7348	.00000	.99999
37 21 41	28.9167	.00000	.99999	25 28 46	33.9394	.00000	.99999	25 28 46	33.9394	.00000	.99999

(14)



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TABLE D

CHI SQUARE - P(1/3), P(1/4/3), P(2/2/3) N=99

U	V	W	X2	P(A) CUM P(D)	U	V	W	X2	P(A) CUM P(D)
16 32 49	43.2273	.00000	.99999		42 56 1	25.7727	.00000	.99999	
47 16 34	32.6667	.00000	.99999		51 15 53	34.0318	.00000	.99999	
55 16 30	32.6667	.00000	.99999		50 15 34	34.0318	.00000	.99999	
33 20 44	39.2727	.00000	.99999		41 57 1	25.8258	.00000	.99999	
25 25 49	43.2273	.00000	.99999		43 55 1	25.8258	.00000	.99999	
52 47 2	27.1439	.00000	.99999		21 73 5	36.6136	.00000	.99999	
31 21 47	40.5550	.00000	.99999		28 22 49	44.8939	.00000	.99999	
28 68 3	32.2576	.00000	.99999		49 15 35	34.5530	.00000	.99999	
61 17 41	34.9167	.00000	.99999		52 15 32	34.5530	.00000	.99999	
33 64 2	27.2727	.00000	.99999		53 44 2	35.3030	.00000	.99999	
15 14 10	36.8182	.00000	.99999		40 56 1	25.9898	.00000	.99999	
45 18 37	33.1867	.00000	.99999		42 16 4	36.6118	.00000	.99999	
35 19 45	38.3712	.00000	.99999		44 54 1	25.9898	.00000	.99999	
15 36 48	42.0000	.00000	.99999		26 70 3	33.2576	.00000	.99999	
50 16 29	33.8891	.00000	.99999		48 15 36	34.0409	.00000	.99999	
11 74 9	35.8939	.00000	.99999		53 15 31	34.9167	.00000	.99999	
10 74 11	35.8939	.00000	.99999		39 59 1	26.2500	.00000	.99999	
17 33 49	43.6439	.00000	.99999		17 32 50	46.6667	.00000	.99999	
29 22 48	42.2121	.00000	.99999		45 53 1	26.2500	.00000	.99999	
22 72 5	35.6212	.00000	.99999		30 67 2	39.4773	.00000	.99999	
43 16 38	33.8182	.00000	.99999		25 24 50	46.6667	.00000	.99999	
24 24 49	43.7121	.00000	.99999		19 74 6	38.0303	.00000	.99999	
23 73 6	35.8712	.00000	.99999		15 75 9	34.3499	.00000	.99999	
51 46 2	28.0909	.00000	.99999		14 75 10	39.3258	.00000	.99999	
17 74 8	37.1212	.00000	.99999		23 72 4	35.3704	.00000	.99999	
45 16 4	28.2348	.00000	.99999		47 15 37	35.2803	.00000	.99999	
37 18 42	37.8485	.00000	.99999		54 15 30	35.3864	.00000	.99999	
48 17 42	36.2348	.00000	.99999		38 17 44	39.3258	.00000	.99999	
49 16 54	34.6212	.00000	.99999		34 60 1	24.6212	.00000	.99999	
24 71 4	33.7500	.00000	.99999		46 52 1	24.6212	.00000	.99999	
16 34 49	44.1667	.00000	.99999		33 19 47	42.6136	.00000	.99999	
27 69 3	31.7845	.00000	.99999		31 20 48	43.9394	.00000	.99999	
21 28 50	43.8142	.00000	.99999		16 75 8	39.5076	.00000	.99999	
17 23 49	46.2500	.00000	.99999		41 16 42	37.9394	.00000	.99999	
32 40 47	41.5303	.00000	.99999		46 15 38	35.8712	.00000	.99999	
23 29 50	45.8712	.00000	.99999		37 61 1	27.0985	.00000	.99999	
22 27 50	45.8712	.00000	.99999		47 51 1	27.0985	.00000	.99999	
52 45 2	29.1439	.00000	.99999		35 18 46	41.6667	.00000	.99999	
18 74 7	37.5809	.00000	.99999		16 33 50	47.1839	.00000	.99999	
39 19 46	40.4167	.00000	.99999		26 23 50	47.1839	.00000	.99999	
19 30 50	46.3903	.00000	.99999		29 21 49	45.6439	.00000	.99999	
30 21 46	43.0227	.00000	.99999		45 15 39	36.6136	.00000	.99999	
23 26 50	46.0383	.00000	.99999		36 62 1	27.6818	.00000	.99999	
43 16 40	35.5758	.00000	.99999		29 60 2	31.7576	.00000	.99999	
20 66 2	29.3030	.00000	.99999		48 50 1	27.6818	.00000	.99999	
36 17 43	37.7845	.00000	.99999		17 75 7	39.8258	.00000	.99999	
36 18 45	36.6818	.00000	.99999		20 28 51	49.1667	.00000	.99999	
18 31 50	46.2955	.00000	.99999		21 27 51	49.1591	.00000	.99999	
29 25 50	46.2955	.00000	.99999		25 71 3	34.9167	.00000	.99999	
13 35 49	44.7955	.00000	.99999		37 17 45	41.0985	.00000	.99999	

(17)

TABLE D

U	V	W	X2	P(A) CUM P(D)	U	V	W	X2	P(A) CUM P(D)
22 26 51	49.2576	.00000	.99999		32 64 1	31.0758	.00000	.99999	
19 29 51	49.2603	.00000	.99999		15 33 51	50.7955	.00000	.99999	
40 16 43	39.3405	.00000	.99999		46 14 39	38.7121	.00000	.99999	
30 63 1	28.3712	.00000	.99999		20 27 52	52.5985	.00000	.99999	
20 74 5	58.7121	.00000	.99999		41 15 43	41.0985	.00000	.99999	
49 49 1	28.3712	.00000	.99999		29 20 50	49.2121	.00000	.99999	
46 15 48	37.5876	.00000	.99999		21 24 52	52.6364	.00000	.99999	
10 34 58	47.7273	.00000	.99999		35 17 47	45.0985	.00000	.99999	
27 22 58	47.7273	.00000	.99999		19 28 52	52.6667	.00000	.99999	
23 25 51	49.4621	.00000	.99999		22 25 52	52.7803	.00000	.99999	
18 38 51	49.5000	.00000	.99999		18 29 52	52.6667	.00000	.99999	
22 73 8	37.5876	.00000	.99999		45 14 48	39.3405	.00000	.99999	
52 19 44	44.9621	.00000	.99999		17 74 6	42.6667	.00000	.99999	
34 18 47	43.8030	.00000	.99999		23 73 5	38.5530	.00000	.99999	
30 20 49	46.5000	.00000	.99999		53 45 1	32.1894	.00000	.99999	
10 75 6	48.2955	.00000	.99999		23 24 52	53.0303	.00000	.99999	
28 49 2	33.1439	.00000	.99999		31 67 1	32.1894	.00000	.99999	
34 64 1	29.1667	.00000	.99999		17 30 52	53.1212	.00000	.99999	
50 48 1	29.1667	.00000	.99999		27 21 51	51.3409	.00000	.99999	
24 24 51	49.7727	.00000	.99999		37 16 46	44.8484	.00000	.99999	
17 31 51	49.8258	.00000	.99999		26 71 2	36.2548	.00000	.99999	
43 15 41	38.5530	.00000	.99999		40 15 44	42.5985	.00000	.99999	
39 16 44	49.9991	.00000	.99999		44 14 41	44.5303	.00000	.99999	
36 17 46	43.0227	.00000	.99999		32 18 49	48.5303	.00000	.99999	
51 14 34	36.6142	.00000	.99999		24 23 52	53.3864	.00000	.99999	
52 14 33	36.6039	.00000	.99999		50 19 50	50.1136	.00000	.99999	
50 14 35	36.6039	.00000	.99999		16 31 52	53.5876	.00000	.99999	
20 21 50	48.4167	.00000	.99999		34 17 48	47.5258	.00000	.99999	
14 74 9	41.8939	.00000	.99999		20 75 1	41.8894	.00000	.99999	
53 14 32	37.1212	.00000	.99999		14 77 8	44.5985	.00000	.99999	
49 14 36	37.1212	.00000	.99999		30 68 1	33.4091	.00000	.99999	
24 72 3	36.6818	.00000	.99999		43 14 42	41.6667	.00000	.99999	
25 23 51	50.1894	.00000	.99999		52 13 34	39.3258	.00000	.99999	
51 47 1	38.0682	.00000	.99999		51 13 35	39.3409	.00000	.99999	
33 65 1	38.0682	.00000	.99999		28 20 51	52.0758	.00000	.99999	
15 76 8	42.0000	.00000	.99999		18 74 5	43.2273	.00000	.99999	
16 32 51	50.2576	.00000	.99999		53 13 33	39.4621	.00000	.99999	
54 14 31	37.5809	.00000	.99999		39 15 45	44.2500	.00000	.99999	
42 15 42	39.7500	.00000	.99999		25 22 52	53.8895	.00000	.99999	
48 14 37	37.5809	.00000	.99999		50 13 36	39.5876	.00000	.99999	
47 14 38	38.0303	.00000	.99999		36 16 47	46.5000	.00000	.99999	
27 70 2	34.6364	.00000	.99999		54 13 32	39.7500	.00000	.99999	
16 74 7	42.2576	.00000	.99999		15 77 7	44.7955	.00000	.99999	
31 19 49	47.4621	.00000	.99999		19 32 52	54.0000	.00000	.99999	
38 16 45	42.6212	.00000	.99999		49 13 37	39.6258	.00000	.99999	
33 18 48	46.0989	.00000	.99999		22 74 3	40.5303	.00000	.99999	
21 74 4	39.5455	.00000	.99999		42 57 0	28.2955	.00000	.99999	
19 75 5	48.9167	.00000	.99999		25 72 2	37.9394	.00000	.99999	
52 46 1	31.0758	.00000	.99999		43 56 0	28.3850	.00000	.99999	
26 22 51	50.7121	.00000	.99999		41 58 0	28.3939	.00000	.99999	

(18)

TABLE D

CHI SQUARE - P(1/3), P(1/4/3), P(2/2/3) N=99

U	V	W	X2	P(A) CUM P(D)	U	V	W	X2	P(A) CUM P(D)
44 55 0	28.4167	.00000	.99999		25 21 53	57.6439	.00000	.99999	
48 13 38	40.2955	.00000	.99999		28 19 52	55.8712	.00000	.99999	
40 59 0	28.5985	.00000	.99999		52 12 35	41.8939	.00000	.99999	
42 14 43	42.9845	.00000	.99999		34 65 0	32.0530	.00000	.99999	
45 54 0	28.6364	.00000	.99999		53 12 34	41.9394	.00000	.99999	
28 26 55	35.1867	.00000	.99999		27 71 1	37.7045	.00000	.99999	
19 27 53	38.1894	.00000	.99999		51 12 36	42.0000	.00000	.99999	
39 62 0	28.9891	.00000	.99999		51 40 0	32.1818	.00000	.99999	
29 49 1	34.7348	.00000	.99999		54 12 33	42.1364	.00000	.99999	
21 25 53	36.2500	.00000	.99999		43 13 43	44.9167	.00000	.99999	
44 53 0	28.9621	.00000	.99999		19 26 54	59.8485	.00000	.99999	
24 21 52	34.4167	.00000	.99999		50 12 37	42.2576	.00000	.99999	
16 28 53	36.3182	.00000	.99999		20 25 54	59.8712	.00000	.99999	
47 13 39	48.9167	.00000	.99999		15 78 6	47.7273	.00000	.99999	
31 18 50	51.1212	.00000	.99999		23 74 2	41.6666	.00000	.99999	
18 77 8	45.1439	.00000	.99999		34 14 46	47.7273	.00000	.99999	
33 17 49	49.7045	.00000	.99999		14 27 54	59.9314	.00000	.99999	
38 15 9	46.0530	.00000	.99999		36 15 48	59.1136	.00000	.99999	
38 61 3	29.3258	.00000	.99999		21 24 54	60.0000	.00000	.99999	
22 24 53	34.9394	.00000	.99999		49 12 38	42.6667	.00000	.99999	
47 52 0	29.3939	.00000	.99999		17 28 54	60.1212	.00000	.99999	
29 19 51	52.9167	.00000	.99999		33 66 8	33.0000	.00000	.99999	
17 19 53	36.5530	.00000	.99999		18 77 4	46.2955	.00000	.99999	
48 13 38	41.1346	.00000	.99999		52 47 0	34.1439	.00000	.99999	
35 16 48	46.6667	.00000	.99999		28 19 53	55.8712	.00000	.99999	
41 14 44	44.3939	.00000	.99999		26 20 53	54.2576	.00000	.99999	
37 62 0	29.8485	.00000	.99999		22 26 54	60.2348	.00000	.99999	
49 51 0	29.9318	.00000	.99999		22 73 3	44.8030	.00000	.99999	
23 23 53	36.7346	.00000	.99999		42 13 44	46.2955	.00000	.99999	
19 76 4	43.9394	.00000	.99999		31 17 51	54.9167	.00000	.99999	
16 30 53	39.9535	.00000	.99999		16 29 54	60.4167	.00000	.99999	
29 73 2	39.7500	.00000	.99999		33 16 50	53.4545	.00000	.99999	
27 26 52	55.0909	.00000	.99999		47 12 40	43.9394	.00000	.99999	
48 13 43	42.6136	.00000	.99999		29 18 52	56.7576	.00000	.99999	
28 19 53	55.8712	.00000	.99999		23 72 1	39.3485	.00000	.99999	
36 63 0	30.4773	.00000	.99999		26 22 54	59.8712	.00000	.99999	
49 54 0	36.5758	.00000	.99999		16 78 5	46.1667	.00000	.99999	
21 75 3	42.6136	.00000	.99999		38 14 47	49.6212	.00000	.99999	
17 77 8	45.6439	.00000	.99999		32 67 0	34.0530	.00000	.99999	
22 23 53	37.1364	.00000	.99999		53 46 0	34.2121	.00000	.99999	
37 15 47	48.0676	.00000	.99999		15 32 54	60.8182	.00000	.99999	
49 14 45	45.9848	.00000	.99999		46 12 41	44.8030	.00000	.99999	
33 64 0	31.2121	.00000	.99999		35 15 49	52.3712	.00000	.99999	
15 31 55	37.3609	.00000	.99999		41 13 45	47.6258	.00000	.99999	
32 17 50	52.2348	.00000	.99999		27 19 53	58.9773	.00000	.99999	
48 14 42	41.1346	.00000	.99999		24 27 52	43.6894	.00000	.99999	
39 49 0	31.3258	.00000	.99999		28 75 1	51.8277	.00000	.99999	
30 18 51	53.8636	.00000	.99999		45 12 42	55.8182	.00000	.99999	
19 78 7	47.6399	.00000	.99999		31 44 8	35.2121	.00000	.99999	
38 16 49	50.9848	.00000	.99999		37 14 48	51.6667	.00000	.99999	

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TABLE D

CHI SQUARE - P(41/33), P(44/93), P(212/93) N=99

U	V	W	X2	P(A) CUM P(D)	U	V	W	X2	P(A) CUM P(D)
23	22	57	71.8630	.00000 .99999	23	76	0	46.5030	.00000 .99999
35	13	51	66.1894	.00000 .99999	47	9	43	55.8258	.00000 .99999
46	1	43	51.4394	.00000 .99999	38	11	51	61.1439	.00000 .99999
13	27	57	72.0682	.00000 .99999	35	12	52	64.3030	.00000 .99999
21	77	1	49.1591	.00000 .99999	25	17	57	74.1894	.00000 .99999
21	21	57	72.0682	.00000 .99999	19	79	1	55.8258	.00000 .99999
41	11	47	55.0965	.00000 .99999	22	19	58	76.7805	.00000 .99999
23	18	56	69.8465	.00000 .99999	46	9	44	54.9621	.00000 .99999
23	74	9	44.3939	.00000 .99999	41	17	44	54.9394	.00000 .99999
13	59	5	34.6212	.00000 .99999	31	14	50	70.2273	.00000 .99999
33	15	58	55.9518	.00000 .99999	28	15	56	72.4167	.00000 .99999
19	79	2	52.8939	.00000 .99999	32	13	54	68.4167	.00000 .99999
43	11	44	52.6364	.00000 .99999	45	9	45	56.2504	.00000 .99999
32	14	53	64.1667	.00000 .99999	37	11	51	63.4621	.00000 .99999
22	40	57	72.4394	.00000 .99999	23	18	58	77.3036	.00000 .99999
29	16	55	68.0758	.00000 .99999	26	16	57	74.9848	.00000 .99999
37	12	50	69.3939	.00000 .99999	22	77	0	59.4167	.00000 .99999
14	61	4	56.7805	.00000 .99999	34	12	53	66.9848	.00000 .99999
63	11	48	56.9621	.00000 .99999	16	81	2	54.0530	.00000 .99999
34	13	52	62.7805	.00000 .99999	17	23	59	80.0076	.00000 .99999
54	9	36	50.1136	.00000 .99999	54	8	37	53.0455	.00000 .99999
53	9	37	50.1894	.00000 .99999	40	10	45	60.8439	.00000 .99999
48	1	40	53.9848	.00000 .99999	18	22	59	85.8439	.00000 .99999
23	17	56	70.5985	.00000 .99999	16	24	59	85.8758	.00000 .99999
52	9	38	53.9167	.00000 .99999	53	8	38	53.2121	.00000 .99999
23	19	57	72.9167	.00000 .99999	14	82	3	60.1667	.00000 .99999
51	9	39	50.7455	.00000 .99999	52	8	39	53.5303	.00000 .99999
29	75	0	46.2955	.00000 .99999	44	9	46	57.6894	.00000 .99999
22	78	1	51.4394	.00000 .99999	19	21	49	80.1894	.00000 .99999
50	9	40	51.3258	.00000 .99999	15	20	59	80.2533	.00000 .99999
53	12	51	61.7727	.00000 .99999	51	8	40	54.0530	.00000 .99999
14	23	58	75.7500	.00000 .99999	24	17	58	77.9318	.00000 .99999
17	24	58	75.7576	.00000 .99999	20	20	59	80.4394	.00000 .99999
43	1	46	53.9848	.00000 .99999	50	8	41	54.6212	.00000 .99999
39	11	49	58.9773	.00000 .99999	18	80	1	56.3142	.00000 .99999
49	4	41	52.0076	.00000 .99999	29	14	56	75.8464	.00000 .99999
19	22	58	75.8465	.00000 .99999	36	11	52	69.9318	.00000 .99999
15	25	58	75.8712	.00000 .99999	31	13	55	71.4621	.00000 .99999
23	12	55	69.8465	.00000 .99999	43	9	47	59.2803	.00000 .99999
31	14	54	67.1212	.00000 .99999	39	10	50	63.0000	.00000 .99999
24	18	57	73.5000	.00000 .99999	27	15	57	75.8464	.00000 .99999
40	21	58	76.0530	.00000 .99999	49	4	42	55.3939	.00000 .99999
13	26	58	76.0959	.00000 .99999	21	14	59	80.7955	.00000 .99999
17	60	2	55.3939	.00000 .99999	33	12	54	69.8167	.00000 .99999
13	61	3	57.3449	.00000 .99999	21	78	0	52.6364	.00000 .99999
27	16	56	71.4545	.00000 .99999	48	8	43	56.3142	.00000 .99999
33	13	53	65.5227	.00000 .99999	25	16	58	78.6667	.00000 .99999
43	9	42	52.8449	.00000 .99999	42	9	43	61.8227	.00000 .99999
42	10	47	57.1364	.00000 .99999	22	18	59	81.2576	.00000 .99999
21	21	58	75.3636	.00000 .99999	47	8	44	57.3939	.00000 .99999

(21)

TABLE D

CHI SQUARE - P(41/33), P(44/93), P(212/93) N=99

U	V	W	X2	P(A) CUM P(D)	U	V	W	X2	P(A) CUM P(D)
33	8	53	73.8939	.00000 .99999	18	17	64	103.5682	.00000 .99999
47	6	46	54.9394	.00000 .99999	22	14	63	100.5303	.00000 .99999
32	1	57	81.9848	.00000 .99999	41	6	52	75.6667	.00000 .99999
28	14	61	92.4555	.00000 .99999	27	11	61	94.9773	.00000 .99999
21	16	62	99.8991	.00000 .99999	34	8	57	85.1667	.00000 .99999
41	7	51	71.2803	.00000 .99999	46	5	48	70.4167	.00000 .99999
43	6	47	55.3485	.00000 .99999	29	10	60	92.3939	.00000 .99999
16	83	0	65.3258	.00000 .99999	37	7	55	81.0985	.00000 .99999
13	21	63	98.2500	.00000 .99999	14	85	0	71.1439	.00000 .99999
1	24	63	98.2576	.00000 .99999	19	16	64	103.9394	.00000 .99999
37	8	54	75.8464	.00000 .99999	25	12	62	97.9394	.00000 .99999
39	9	55	80.4167	.00000 .99999	31	9	59	90.1894	.00000 .99999
17	14	63	98.3712	.00000 .99999	45	5	49	72.0682	.00000 .99999
27	12	60	96.0000	.00000 .99999	23	13	63	101.2803	.00000 .99999
29	11	59	87.4621	.00000 .99999	40	6	53	77.9848	.00000 .99999
22	15	62	95.5076	.00000 .99999	54	4	41	64.1364	.00000 .99999
43	6	48	67.9091	.00000 .99999	20	15	64	104.4167	.00000 .99999
18	16	63	98.5949	.00000 .99999	53	4	42	66.6667	.00000 .99999
54	5	41	62.6591	.00000 .99999	36	7	56	83.9318	.00000 .99999
47	7	52	73.5076	.00000 .99999	33	8	58	88.3636	.00000 .99999
23	13	61	92.9167	.00000 .99999	52	4	43	67.3485	.00000 .99999
31	10	58	83.5030	.00000 .99999	44	5	50	73.8712	.00000 .99999
53	5	41	63.0985	.00000 .99999	15	19	65	108.0682	.00000 .99999
19	17	63	98.9167	.00000 .99999	16	18	65	108.1667	.00000 .99999
52	5	42	63.6894	.00000 .99999	28	10	61	96.1667	.00000 .99999
44	6	49	69.8212	.00000 .99999	51	4	44	68.1818	.00000 .99999
35	8	55	79.2273	.00000 .99999	26	11	62	98.9621	.00000 .99999
51	5	43	64.4318	.00000 .99999	21	14	64	105.0000	.00000 .99999
33	9	57	83.5227	.00000 .99999	39	6	54	80.4545	.00000 .99999
23	14	62	98.2121	.00000 .99999	17	17	65	108.3712	.00000 .99999
27	16	63	99.3485	.00000 .99999	30	9	60	93.7500	.00000 .99999
37	7	53	73.8864	.00000 .99999	24	12	63	102.1364	.00000 .99999
52	5	44	65.3258	.00000 .99999	50	4	45	69.1667	.00000 .99999
13	84	0	68.1818	.00000 .99999	43	5	51	75.8258	.00000 .99999
46	6	51	71.4848	.00000 .99999	35	7	57	86.9167	.00000 .99999
43	11	60	91.1439	.00000 .99999	18	16	65	108.6818	.00000 .99999
25	12	61	93.8939	.00000 .99999	49	4	46	71.7030	.00000 .99999
49	5	45	66.3712	.00000 .99999	32	8	59	91.7121	.00000 .99999
12	39	8	79.7727	.00000 .99999	22	13	64	105.6894	.00000 .99999
35	8	56	82.1212	.00000 .99999	18	6	55	83.0758	.00000 .99999
21	15	63	99.8864	.00000 .99999	48	4	47	71.5000	.00000 .99999
19	20	64	103.0909	.00000 .99999	42	5	52	77.9318	.00000 .99999
29	13	62	97.0227	.00000 .99999	19	15	65	109.0985	.00000 .99999
43	5	46	67.5682	.00000 .99999	27	10	62	100.0909	.00000 .99999
19	19	64	103.1439	.00000 .99999	25	11	63	103.0985	.00000 .99999
32	7	54	78.4167	.00000 .99999	29	9	61	97.4621	.00000 .99999
42	6	51	73.5000	.00000 .99999	47	4	48	73.0303	.00000 .99999
32	9	58	86.7805	.00000 .99999	34	7	58	90.0530	.00000 .99999
17	18	64	103.3730	.00000 .99999	20	14	65	109.6212	.00000 .99999
47	5	47	64.9167	.00000 .99999	41	5	53	80.1894	.00000 .99999

(23)

TABLE D

U	V	W	X2	P(A) CUM P(D)	U	V	W	X2	P(A) CUM P(D)
38	10	51	65.2576	.00000 .99999	38	9	52	69.5076	.00000 .99999
15	82	2	60.8162	.00000 .99999	23	16	60	86.4648	.00000 .99999
35	11	53	68.5530	.00000 .99999	28	13	58	81.5076	.00000 .99999
30	13	56	74.5591	.00000 .99999	47	7	45	61.2985	.00000 .99999
28	14	57	76.8939	.00000 .99999	19	19	61	89.2803	.00000 .99999
17	22	68	88.3939	.00000 .99999	32	12	57	79.2273	.00000 .99999
16	23	68	88.4167	.00000 .99999	24	14	59	84.1667	.00000 .99999
46	8	45	58.4212	.00000 .99999	32	11	56	77.3258	.00000 .99999
17	81	1	58.9167	.00000 .99999	20	18	61	89.6212	.00000 .99999
23	17	59	81.8439	.00000 .99999	46	7	46	62.4167	.00000 .99999
41	9	49	62.9167	.00000 .99999	41	8	50	67.3303	.00000 .99999
18	21	60	88.4773	.00000 .99999	18	81	0	59.9318	.00000 .99999
32	12	55	72.8030	.00000 .99999	15	83	1	64.4318	.00000 .99999
15	24	60	84.5455	.00000 .99999	24	15	60	87.2985	.00000 .99999
26	15	58	79.5556	.00000 .99999	37	9	53	72.0076	.00000 .99999
19	20	60	88.6667	.00000 .99999	34	10	55	75.5035	.00000 .99999
20	79	0	54.9621	.00000 .99999	21	17	61	90.6862	.00000 .99999
37	10	52	70.6667	.00000 .99999	42	7	47	62.5556	.00000 .99999
45	46	0	60.0000	.00000 .99999	54	6	39	59.3162	.00000 .99999
34	11	50	71.3258	.00000 .99999	40	8	51	69.1667	.00000 .99999
20	19	60	88.6621	.00000 .99999	53	6	40	59.6667	.00000 .99999
54	7	38	56.1136	.00000 .99999	29	12	58	82.6667	.00000 .99999
40	9	50	68.6621	.00000 .99999	27	13	59	85.1591	.00000 .99999
53	7	39	56.3712	.00000 .99999	52	6	41	60.1667	.00000 .99999
24	16	59	82.5000	.00000 .99999	31	17	57	80.5535	.00000 .99999
52	7	40	56.7835	.00000 .99999	44	7	46	60.5076	.00000 .99999
44	8	47	61.5303	.00000 .99999	22	16	61	90.6212	.00000 .99999
21	18	60	89.5363	.00000 .99999	16	21	62	93.5756	.00000 .99999
29	13	57	78.0076	.00000 .99999	15	22	62	93.5495	.00000 .99999
37	10	53	70.6667	.00000 .99999	51	7	40	59.6667	.00000 .99999
31	12	56	73.9394	.00000 .99999	27	10	62	93.5756	.00000 .99999
27	14	58	80.4545	.00000 .99999	25	14	60	88.7333	.00000 .99999
14	83	2	63.5894	.00000 .99999	36	9	54	74.6591	.00000 .99999
36	15	53	70.6273	.00000 .99999	18	19	62	93.7500	.00000 .99999
50	7	42	58.1500	.00000 .99999	50	6	43	61.1212	.00000 .99999
39	9	51	67.1591	.00000 .99999	33	10	56	78.1818	.00000 .99999
16	82	1	61.8212	.00000 .99999	39	8	52	71.8545	.00000 .99999
43	8	48	63.2121	.00000 .99999	17	82	0	62.5756	.00000 .99999
19	80	0	57.9359	.00000 .99999	43	7	49	67.2803	.00000 .99999
33	11	55	74.2500	.00000 .99999	19	18	62	92.3303	.00000 .99999
22	17	66	85.8162	.00000 .99999	6	82	0	62.5756	.00000 .99999
15	18	61	88.3003	.00000 .99999	23	16	61	92.6576	.00000 .99999
49	7	43	58.9167	.00000 .99999	14	84	1	67.5485	.00000 .99999
16	22	61	88.8939	.00000 .99999	28	12	59	86.2576	.00000 .99999
17	21	61	88.9167	.00000 .99999	48	6	45	63.6818	.00000 .99999
48	7	44	59.9318	.00000 .99999	2	17	62	94.4167	.00000 .99999
15	23	61	88.9773	.00000 .99999	3	11	58	83.5318	.00000 .99999
18	20	61	89.0455	.00000 .99999	35	9	55	77.4521	.00000 .99999
42	8	49	65.9556	.00000 .99999	26	13	60	88.9621	.00000 .99999
35	10	54	72.9394	.00000 .99999	42	7	50	68.2045	.00000 .99999



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TABLE D

CHI SQUARE - P(11/3), P(14/9), P(22/9) N=99

U	V	W	X2	P(A) CUM P(D)	U	V	W	X2	P(A) CUM P(D)
43	5	56	92.2348	.00000 .99999	19	10	70	136.9394	.00000 .99999
17	13	69	150.2076	.00000 .99999	35	3	61	107.4621	.00000 .99999
23	8	66	119.2934	.00000 .99999	45	1	53	90.0682	.00000 .99999
45	2	52	85.3636	.00000 .99999	16	12	71	141.1667	.00000 .99999
25	9	67	122.9167	.00000 .99999	59	2	58	100.0909	.00000 .99999
27	7	65	115.2502	.00000 .99999	24	7	68	129.7500	.00000 .99999
32	5	62	107.3258	.00000 .99999	22	8	69	133.5303	.00000 .99999
39	3	57	94.9773	.00000 .99999	26	6	67	126.3485	.00000 .99999
19	12	69	150.2076	.00000 .99999	31	4	64	116.6667	.00000 .99999
33	4	60	102.1212	.00000 .99999	44	1	54	92.2348	.00000 .99999
21	16	68	126.8182	.00000 .99999	17	11	71	141.1667	.00000 .99999
54	1	44	77.3864	.00000 .99999	20	9	70	137.6894	.00000 .99999
28	6	64	115.4848	.00000 .99999	34	3	62	110.9621	.00000 .99999
44	2	53	87.4394	.00000 .99999	28	5	66	123.3258	.00000 .99999
53	1	45	78.1894	.00000 .99999	38	2	59	103.0758	.00000 .99999
52	1	46	79.1439	.00000 .99999	54	0	45	81.4091	.00000 .99999
19	11	69	151.0985	.00000 .99999	43	1	55	94.5530	.00000 .99999
45	2	54	89.6667	.00000 .99999	53	0	46	82.3030	.00000 .99999
53	3	58	97.8712	.00000 .99999	18	10	71	142.2273	.00000 .99999
13	14	70	135.0000	.00000 .99999	52	0	47	83.3485	.00000 .99999
51	1	47	80.2500	.00000 .99999	23	7	69	134.5530	.00000 .99999
29	8	67	123.9545	.00000 .99999	40	4	65	120.6818	.00000 .99999
31	5	63	111.0985	.00000 .99999	50	4	68	130.9394	.00000 .99999
25	7	66	120.5985	.00000 .99999	37	2	60	104.2121	.00000 .99999
34	4	61	103.5303	.00000 .99999	21	8	70	138.5455	.00000 .99999
22	9	68	127.6894	.00000 .99999	33	3	63	114.6136	.00000 .99999
16	13	70	135.5258	.00000 .99999	42	1	56	97.0227	.00000 .99999
50	1	48	81.5076	.00000 .99999	51	0	48	84.5455	.00000 .99999
28	6	65	117.6212	.00000 .99999	15	12	72	146.7273	.00000 .99999
42	2	55	92.6455	.00000 .99999	27	5	67	127.7045	.00000 .99999
49	1	49	82.9167	.00000 .99999	50	0	49	85.8939	.00000 .99999
37	3	59	100.9167	.00000 .99999	19	9	71	142.9167	.00000 .99999
20	10	69	131.8030	.00000 .99999	16	11	72	147.1439	.00000 .99999
17	12	70	135.7576	.00000 .99999	41	1	57	99.6439	.00000 .99999
35	4	62	109.9621	.00000 .99999	36	2	61	109.5000	.00000 .99999
30	5	64	113.0227	.00000 .99999	49	0	50	87.3939	.00000 .99999
41	2	56	94.5758	.00000 .99999	29	4	66	124.8485	.00000 .99999
23	7	67	125.0985	.00000 .99999	52	3	64	118.4167	.00000 .99999
23	8	68	128.6667	.00000 .99999	48	0	51	89.0455	.00000 .99999
18	11	73	136.2955	.00000 .99999	22	7	70	139.5076	.00000 .99999
47	1	51	86.1894	.00000 .99999	24	6	69	135.6818	.00000 .99999
36	3	60	104.1136	.00000 .99999	17	10	72	147.6667	.00000 .99999
27	6	66	121.9091	.00000 .99999	40	1	58	102.4167	.00000 .99999
21	9	69	132.6136	.00000 .99999	20	8	71	143.7121	.00000 .99999
40	2	57	97.2576	.00000 .99999	26	5	68	132.2348	.00000 .99999
49	1	52	88.1539	.00000 .99999	47	0	52	90.8485	.00000 .99999
32	4	63	112.8030	.00000 .99999	35	2	62	112.9394	.00000 .99999
13	13	71	140.7955	.00000 .99999	31	3	65	122.3712	.00000 .99999
29	5	65	119.0985	.00000 .99999	46	0	53	92.8030	.00000 .99999
					18	9	72	148.2955	.00000 .99999

(25)

TABLE D

U	V	W	X2	P(A) CUM P(D)	U	V	W	X2	P(A) CUM P(D)
39	1	59	105.3409	.00000 .99999	29	2	68	136.7576	.00000 .99999
28	4	67	129.1667	.00000 .99999	26	3	70	144.4167	.00000 .99999
15	11	73	152.7955	.00000 .99999	16	8	75	165.8939	.00000 .99999
34	2	63	116.5303	.00000 .99999	37	0	62	117.2121	.00000 .99999
23	6	70	140.5758	.00000 .99999	32	1	66	130.1530	.00000 .99999
45	0	54	94.9091	.00000 .99999	21	5	73	157.1591	.00000 .99999
21	7	71	144.6136	.00000 .99999	19	6	74	161.6667	.00000 .99999
25	5	69	136.9167	.00000 .99999	23	4	72	153.0303	.00000 .99999
38	1	60	108.4167	.00000 .99999	28	2	69	141.2576	.00000 .99999
16	18	75	155.2576	.00000 .99999	36	0	63	120.6818	.00000 .99999
19	8	72	149.0303	.00000 .99999	17	7	75	164.5530	.00000 .99999
30	3	66	124.4773	.00000 .99999	25	3	71	149.2803	.00000 .99999
44	8	85	97.1667	.00000 .99999	31	1	67	134.1894	.00000 .99999
27	4	68	133.6364	.00000 .99999	15	8	76	171.8182	.00000 .99999
33	2	64	120.2727	.00000 .99999	35	0	64	124.3030	.00000 .99999
37	1	61	111.6439	.00000 .99999	20	5	74	162.5985	.00000 .99999
17	9	73	153.8258	.00000 .99999	22	4	73	158.2576	.00000 .99999
43	0	56	99.5758	.00000 .99999	27	2	70	145.9091	.00000 .99999
22	6	71	145.6212	.00000 .99999	18	6	75	167.3182	.00000 .99999
24	5	70	141.7500	.00000 .99999	24	3	72	154.2955	.00000 .99999
28	7	72	149.8712	.00000 .99999	30	1	68	138.4773	.00000 .99999
29	3	67	130.7348	.00000 .99999	16	7	76	172.4167	.00000 .99999
42	0	57	102.1364	.00000 .99999	34	0	65	128.0758	.00000 .99999
32	2	65	124.1667	.00000 .99999	26	2	71	150.7121	.00000 .99999
36	1	62	115.0227	.00000 .99999	21	4	74	163.6364	.00000 .99999
26	4	69	136.2576	.00000 .99999	19	5	75	168.1894	.00000 .99999
18	8	73	154.5000	.00000 .99999	29	1	69	142.9167	.00000 .99999
15	10	74	159.0000	.00000 .99999	33	0	66	132.0000	.00000 .99999
41	0	58	104.8485	.00000 .99999	17	6	75	173.1212	.00000 .99999
28	3	68	135.1439	.00000 .99999	23	3	73	159.4621	.00000 .99999
35	1	63	118.5530	.00000 .99999	15	7	77	178.4318	.00000 .99999
21	6	72	150.8182	.00000 .99999	25	2	72	155.6667	.00000 .99999
23	5	71	146.7348	.00000 .99999	28	1	70	147.5076	.00000 .99999
16	9	74	159.5076	.00000 .99999	32	0	67	136.0758	.00000 .99999
31	2	66	128.2121	.00000 .99999	20	4	75	169.1667	.00000 .99999
19	7	73	155.2803	.00000 .99999	18	5	76	173.9318	.00000 .99999
40	0	59	107.7121	.00000 .99999	22	3	74	164.7893	.00000 .99999
25	4	70	143.0303	.00000 .99999	16	6	77	178.0758	.00000 .99999
17	8	74	160.1212	.00000 .99999	31	0	68	140.3030	.00000 .99999
34	1	64	122.2348	.00000 .99999	27	1	71	152.2500	.00000 .99999
39	0	60	110.7273	.00000 .99999	24	2	73	160.7727	.00000 .99999
27	3	69	139.7045	.00000 .99999	19	4	76	174.8485	.00000 .99999
30	2	67	132.4091	.00000 .99999	21	3	75	170.2500	.00000 .99999
22	5	72	151.8712	.00000 .99999	17	5	77	179.8258	.00000 .99999
20	6	73	156.1667	.00000 .99999	30	0	69	144.6818	.00000 .99999
24	4	71	147.9545	.00000 .99999	26	1	72	157.1439	.00000 .99999
15	9	75	165.3409	.00000 .99999	15	6	78	185.1818	.00000 .99999
38	0	61	113.8939	.00000 .99999	23	2	74	166.0303	.00000 .99999
33	1	65	126.0682	.00000 .99999	29	0	70	149.2121	.00000 .99999
18	7	74	160.8485	.00000 .99999	18	4	77	180.5818	.00000 .99999

(26)

TABLE D

CHI SQUARE - P(11/3), P(14/9), P(22/9) N=99

U	V	W	X2	P(A) CUM P(D)
29	3	76	175.8712	.00000 .99999
16	5	78	185.8712	.00000 .99999
23	1	73	162.1894	.00000 .99999
22	2	75	171.4394	.00000 .99999
24	0	71	153.8939	.00000 .99999
19	3	77	181.6439	.00000 .99999
27	1	74	167.3864	.00000 .99999
14	4	78	186.6667	.00000 .99999
21	2	76	177.0000	.00000 .99999
15	5	79	192.0682	.00000 .99999
27	0	72	158.7273	.00000 .99999
23	1	75	172.7348	.00000 .99999
18	3	78	187.5682	.00000 .99999
15	4	79	192.8030	.00000 .99999
26	0	73	163.7121	.00000 .99999
23	2	77	182.7121	.00000 .99999
22	1	76	178.2348	.00000 .99999
23	0	74	168.8485	.00000 .99999
17	3	79	193.6439	.00000 .99999
19	2	78	188.5758	.00000 .99999
15	4	80	199.4909	.00000 .99999
21	1	77	183.8864	.00000 .99999
24	0	75	174.1364	.00000 .99999
16	3	80	199.8712	.00000 .99999
18	2	79	194.5909	.00000 .99999
23	1	78	189.6894	.00000 .99999
23	0	76	179.5758	.00000 .9999



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TABLE E

CHE SQUARE = P(1/3), P(1/2), P(2/3) N=99

U	V	W	X2	P(1/3) CUM P(1/3)	U	V	W	X2	P(1/3) CUM P(1/3)		
15	52	33	17.8939	.00000	.99996	15	16	68	123.8182	.00000	.99999
15	53	32	17.3256	.00000	.99995	15	17	67	118.4318	.00000	.99999
15	54	31	15.8939	.00000	.99993	15	18	66	113.1818	.00000	.99999
15	55	30	15.5985	.00000	.99992	15	19	65	108.3682	.00000	.99999
15	56	29	13.4394	.00000	.99992	15	20	64	103.0989	.00000	.99999
15	57	28	13.4167	.00000	.99992	15	21	63	98.2530	.00000	.99999
15	58	27	11.5303	.00000	.99992	15	22	62	93.5855	.00000	.99999
15	59	26	11.7803	.00000	.99993	15	23	61	88.9773	.00000	.99999
15	60	25	17.1667	.00000	.99994	15	24	60	84.5055	.00000	.99999
15	61	24	17.6894	.00000	.99995	15	25	59	80.2500	.00000	.99999
15	62	23	18.3485	.00000	.99996	15	26	58	76.0909	.00000	.99999
15	63	22	14.1439	.00000	.99997	15	27	57	72.0682	.00000	.99999
15	64	21	20.0758	.00000	.99998	15	28	56	68.1818	.00000	.99999
15	65	20	21.1439	.00000	.99998	15	29	55	64.5318	.00000	.99999
15	66	19	22.5885	.00000	.99999	15	30	54	60.8182	.00000	.99999
15	67	18	23.6894	.00000	.99999	15	31	53	57.3009	.00000	.99999
15	68	17	25.1667	.00000	.99999	15	32	52	54.0000	.00000	.99999
15	69	16	26.7803	.00000	.99999	15	33	51	50.7955	.00000	.99999
15	70	15	28.5303	.00000	.99999	15	34	50	47.7273	.00000	.99999
15	71	14	30.4167	.00000	.99999	15	35	49	44.7955	.00000	.99999
15	72	13	32.4394	.00000	.99999	15	36	48	42.0000	.00000	.99999
15	73	12	34.5985	.00000	.99999	15	37	47	39.3409	.00000	.99999
15	74	11	36.8939	.00000	.99999	15	38	46	36.8182	.00000	.99999
15	75	10	39.3258	.00000	.99999	15	39	45	34.4318	.00000	.99999
15	76	9	41.8939	.00000	.99999	15	40	44	32.1818	.00000	.99999
15	77	8	44.5985	.00000	.99999	15	41	43	30.0682	.00000	.99999
15	78	7	47.4394	.00000	.99999	15	42	42	28.0909	.00000	.99999
15	79	6	50.4167	.00000	.99999	15	43	41	26.2500	.00000	.99999
15	80	5	53.5303	.00000	.99999	15	44	40	24.5455	.00000	.99999
15	81	4	56.7803	.00000	.99999	15	45	39	22.9773	.00000	.99999
15	82	3	60.1667	.00000	.99999	15	46	38	21.5455	.00000	.99999
15	83	2	63.6894	.00000	.99999	15	47	37	20.2500	.00000	.99999
15	84	1	67.3485	.00000	.99999	15	48	36	19.0909	.00000	.99999
15	85	0	71.1439	.00000	.99999	15	49	35	18.0682	.00000	.99999
15	86	228.5555	.00000	.99999		15	50	34	17.1818	.00000	.99999
15	87	229.8773	.00000	.99999		15	51	33	16.4318	.00000	.99999
15	88	213.5455	.00000	.99999		15	52	32	15.8182	.00000	.99999
15	89	246.2500	.00000	.99999		15	53	31	15.3409	.00000	.99999
15	90	199.0909	.00000	.99999		15	54	30	15.0000	.00000	.99999
15	91	192.0682	.00000	.99999		15	55	29	14.7955	.00000	.99999
15	92	183.1818	.00000	.99999		15	56	28	14.7273	.00000	.99999
15	93	178.4318	.00000	.99999		15	57	27	14.7955	.00000	.99999
15	94	171.8182	.00000	.99999		15	58	26	15.0000	.00000	.99999
15	95	163.3409	.00000	.99999		15	59	25	15.3409	.00000	.99999
15	96	159.0000	.00000	.99999		15	60	24	15.8182	.00000	.99999
15	97	152.7955	.00000	.99999		15	61	23	16.4318	.00000	.99999
15	98	146.7273	.00000	.99999		15	62	22	17.1818	.00000	.99999
15	99	140.7955	.00000	.99999		15	63	21	18.0682	.00000	.99999
15	100	135.0000	.00000	.99999		15	64	20	19.0909	.00000	.99999
15	101	129.3409	.00000	.99999		15	65	19	20.2500	.00000	.99999

(1)

TABLE E

U	V	W	X2	P(1/3) CUM P(1/3)	U	V	W	X2	P(1/3) CUM P(1/3)		
15	66	18	21.5455	.00000	.99998	16	31	52	53.5076	.00000	.99999
15	67	17	22.9773	.00000	.99999	16	32	51	50.2576	.00000	.99999
15	68	16	24.5455	.00000	.99999	16	33	50	47.1839	.00000	.99999
15	69	15	26.2500	.00000	.99999	16	34	49	44.1667	.00000	.99999
15	70	14	28.0909	.00000	.99999	16	35	48	41.3258	.00000	.99999
15	71	13	30.0682	.00000	.99999	16	36	47	38.6212	.00000	.99999
15	72	12	32.1818	.00000	.99999	16	37	46	36.0530	.00000	.99999
15	73	11	34.4318	.00000	.99999	16	38	45	33.6212	.00000	.99999
15	74	10	36.8182	.00000	.99999	16	39	44	31.3258	.00000	.99999
15	75	9	39.3409	.00000	.99999	16	40	43	29.1667	.00000	.99999
15	76	8	42.0000	.00000	.99999	16	41	42	27.1439	.00000	.99999
15	77	7	44.7955	.00000	.99999	16	42	41	25.2576	.00000	.99999
15	78	6	47.7273	.00000	.99999	16	43	40	23.5076	.00000	.99999
15	79	5	50.7955	.00000	.99999	16	44	39	21.8939	.00000	.99999
15	80	4	54.0000	.00000	.99999	16	45	38	20.4167	.00000	.99999
15	81	3	57.3409	.00000	.99999	16	46	37	19.0758	.00000	.99999
15	82	2	60.8182	.00000	.99999	16	47	36	17.8712	.00000	.99999
15	83	1	64.4318	.00000	.99999	16	48	35	16.8032	.00000	.99999
15	84	0	68.1818	.00000	.99999	16	49	34	15.8712	.00000	.99999
15	85	221.6539	.00000	.99999		16	50	33	15.0758	.00000	.99999
15	86	219.9167	.00000	.99999		16	51	32	14.4167	.00000	.99999
15	87	207.0758	.00000	.99999		16	52	31	13.8939	.00000	.99999
15	88	199.8712	.00000	.99999		16	53	30	13.5076	.00000	.99999
15	89	192.8030	.00000	.99999		16	54	29	13.2576	.00000	.99999
15	90	185.8712	.00000	.99999		16	55	28	13.1439	.00000	.99999
15	91	179.0758	.00000	.99999		16	56	27	13.1667	.00000	.99999
15	92	172.4167	.00000	.99999		16	57	26	13.3258	.00000	.99999
15	93	165.8939	.00000	.99999		16	58	25	13.6212	.00000	.99999
15	94	159.5076	.00000	.99999		16	59	24	14.0530	.00000	.99999
15	95	153.2576	.00000	.99999		16	60	23	14.6212	.00000	.99999
15	96	147.1439	.00000	.99999		16	61	22	15.3258	.00000	.99999
15	97	141.1667	.00000	.99999		16	62	21	16.1667	.00000	.99999
15	98	135.3258	.00000	.99999		16	63	20	17.1439	.00000	.99999
15	99	129.6212	.00000	.99999		16	64	19	18.2576	.00000	.99999
15	100	124.0530	.00000	.99999		16	65	18	19.5076	.00000	.99999
15	101	118.5212	.00000	.99999		16	66	17	20.8939	.00000	.99999
15	102	113.2500	.00000	.99999		16	67	16	22.4167	.00000	.99999
15	103	108.1667	.00000	.99999		16	68	15	24.0758	.00000	.99999
15	104	103.1439	.00000	.99999		16	69	14	25.8712	.00000	.99999
15	105	98.2576	.00000	.99999		16	70	13	27.8032	.00000	.99999
15	106	93.5076	.00000	.99999		16	71	12	29.8712	.00000	.99999
15	107	88.9394	.00000	.99999		16	72	11	32.0758	.00000	.99999
15	108	84.4167	.00000	.99999		16	73	10	34.4167	.00000	.99999
15	109	80.0758	.00000	.99999		16	74	9	36.8939	.00000	.99999
15	110	75.8712	.00000	.99999		16	75	8	39.5076	.00000	.99999
15	111	71.8030	.00000	.99999		16	76	7	42.2576	.00000	.99999
15	112	67.8712	.00000	.99999		16	77	6	45.1439	.00000	.99999
15	113	64.0758	.00000	.99999		16	78	5	48.1667	.00000	.99999
15	114	60.4167	.00000	.99999		16	79	4	51.3258	.00000	.99999
15	115	56.8939	.00000	.99999		16	80	3	54.6212	.00000	.99999

(2)

TABLE E

CHE SQUARE = P(1/3), P(1/2), P(2/3) N=99

U	V	W	X2	P(1/3) CUM P(1/3)	U	V	W	X2	P(1/3) CUM P(1/3)		
16	81	2	58.0530	.00000	.99999	17	47	35	15.6439	.00000	.99999
16	82	1	61.6212	.00000	.99999	17	48	34	14.6667	.00000	.99999
16	83	0	65.3258	.00000	.99999	17	49	33	13.8258	.00000	.99999
16	84	215.3439	.00000	.99999		17	50	32	13.1212	.00000	.99999
16	85	208.0076	.00000	.99999		17	51	31	12.5530	.00000	.99999
16	86	201.7576	.00000	.99999		17	52	30	12.1212	.00000	.99999
16	87	195.6439	.00000	.99999		17	53	29	11.6258	.00000	.99999
16	88	188.6667	.00000	.99999		17	54	28	11.1667	.00000	.99999
16	89	179.6439	.00000	.99999		17	55	27	11.6639	.00000	.99999
16	90	173.1212	.00000	.99999		17	56	26	11.1212	.00000	.99999
16	91	165.3258	.00000	.99999		17	57	25	10.6758	.00000	.99999
16	92	156.1212	.00000	.99999		17	58	24	12.3939	.00000	.99999
16	93	145.6439	.00000	.99999		17	59	23	12.9167	.00000	.99999
16	94	147.6667	.00000	.99999		17	60	22	13.8758	.00000	.99999
16	95	141.6439	.00000	.99999		17	61	21	14.3712	.00000	.99999
16	96	135.7576	.00000	.99999		17	62	20	16.3930	.00000	.99999
16	97	130.0076	.00000	.99999		17	63	19	16.3712	.00000	.99999
16	98	124.3939	.00000	.99999		17	64	18	17.9758	.00000	.99999
16	99	118.9167	.00000	.99999		17	65	17	18.9167	.00000	.99999
16	100	113.5758	.00000	.99999		17	66	16	20.3939	.00000	.99999
16	101	108.3712	.00000	.99999		17	67	15	22.0076	.00000	.99999
16	102	103.3258	.00000	.99999		17	68	14	23.7576	.00000	.99999
16	103	98.3712	.00000	.99999		17	69	13	25.6667	.00000	.99999
16	104	93.5758	.00000	.99999		17	70	12	27.6667	.00000	.99999
16	105	88.9167	.00000	.99999		17	71	11	29.6258	.00000	.99999
16	106	84.3939	.00000	.99999		17	72	10	32.1212	.00000	.99999
16	107	80.0076	.00000	.99999		17	73	9	34.9930	.00000	.99999
16	108	75.7576	.00000	.99999		17	74	8	37.1212	.00000	.99999
16	109	71.6439	.00000	.99999		17	75	7	39.6258	.00000	.99999
16	110	67.6667	.00000	.99999		17	76	6	42.6667	.00000	.99999
16	111	63.8258	.00000	.99999		17	77	5	46.6439	.00000	.99999
16	112	60.1212	.00000	.99999		17	78	4	49.7576	.00000	.99999
16	113	56.5530	.00000	.99999		17	79	3	52.0076	.00000	.99999
16	114	53.1212	.00000	.99999		17	80	2	54.3939	.00000	.99999
16	115	49.8258	.00000	.99999		17	81	1	56.9167	.00000	.99999
16	116	46.6667	.00000	.99999		17	82	0	62.5758	.00000	.99999
16	117	43.6439	.00000	.99999		18	0	81	209.0935	.00000	.99999
16	118	40.7576	.00000	.99999		18	1	80	201.7500	.00000	.99999
16	119	38.0076	.00000	.99999		18	2	79	194.3909	.00000	.99999
16	120	35.3439	.00000	.99999		18	3	78	187.5662	.00000	.99999
16	121	32.9167	.00000	.99999		18	4	77	180.6818	.00000	.99999
16	122	30.5758	.00000	.99999		18	5	76	173.9318	.00000	.99999
16	123	28.3712	.00000	.99999		18	6	75	167.3182	.00000	.99999
16	124	26.3030	.00000	.99999		18	7	74	160.8409	.00000	.99999
16	125	24.3258	.00000	.99999		18	8	73	154.5530	.00000	.99999
16	126	22.3758	.00000	.99999		18	9	72	148.2935	.00000	.99999
16	127	20.9167	.00000	.99999		18	10	71	142.2275	.00000	.99999
16	128	19.3939	.00000	.99999		18	11	70	136.2905	.00000	.99999
16	129	17.8076	.00000	.99999		18	12	69	130.5030	.00000	.99999
16	130	16.7576	.00000	.99999		18	13	68	124.8409	.00000	.99999

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TABLE E

CHE SQUARE - P(41/31), P(44/9), P(42/9) N(99)

U	V	W	X2	P(41) CUM P(EE)	U	V	W	X2	P(41) CUM P(EE)
19 32 48	39.9394	.00000	.99999		20 1 78	189.6899	.00000	.99999	
19 33 47	37.6985	.00000	.99999		20 2 77	182.7121	.00000	.99999	
19 34 46	34.3939	.00000	.99999		20 3 76	175.8712	.00000	.99999	
19 35 45	31.8258	.00000	.99999		20 4 75	169.1667	.00000	.99999	
19 36 44	29.3939	.00000	.99999		20 5 74	162.5985	.00000	.99999	
19 37 43	27.6985	.00000	.99999		20 6 73	156.1667	.00000	.99999	
19 38 42	24.9394	.00000	.99999		20 7 72	149.8712	.00000	.99999	
19 39 41	22.9167	.00000	.99999		20 8 71	143.7121	.00000	.99999	
19 40 40	21.0303	.00000	.99999		20 9 70	137.6899	.00000	.99999	
19 41 39	19.2803	.00000	.99999		20 10 69	131.8030	.00000	.99999	
19 42 38	17.6667	.00000	.99999		20 11 68	126.0530	.00000	.99999	
19 43 37	16.1894	.00000	.99999		20 12 67	120.4396	.00000	.99999	
19 44 36	14.8485	.00001	.99999		20 13 66	114.9621	.00000	.99999	
19 45 35	13.6439	.00001	.99999		20 14 65	109.6212	.00000	.99999	
19 46 34	12.5758	.00002	.99997		20 15 64	104.4167	.00000	.99999	
19 47 33	11.6439	.00002	.99997		20 16 63	99.3485	.00000	.99999	
19 48 32	10.8485	.00003	.99995		20 17 62	94.4167	.00000	.99999	
19 49 31	10.1894	.00004	.99995		20 18 61	89.6212	.00000	.99999	
19 50 30	9.6667	.00005	.99993		20 19 60	84.9621	.00000	.99999	
19 51 29	9.2803	.00006	.99993		20 20 59	80.4396	.00000	.99999	
19 52 28	8.9303	.00007	.99993		20 21 58	76.0530	.00000	.99999	
19 53 27	8.6167	.00008	.99993		20 22 57	71.8030	.00000	.99999	
19 54 26	8.3394	.00009	.99992		20 23 56	67.6899	.00000	.99999	
19 55 25	8.0985	.00010	.99992		20 24 55	63.7121	.00000	.99999	
19 56 24	7.8939	.00011	.99991		20 25 54	59.8712	.00000	.99999	
19 57 23	7.7258	.00012	.99991		20 26 53	56.1667	.00000	.99999	
19 58 22	7.5939	.00013	.99990		20 27 52	52.5985	.00000	.99999	
19 59 21	7.4985	.00014	.99990		20 28 51	49.1667	.00000	.99999	
19 60 20	7.4394	.00015	.99989		20 29 50	45.8712	.00000	.99999	
19 61 19	7.4167	.00016	.99989		20 30 49	42.7121	.00000	.99999	
19 62 18	7.4303	.00017	.99988		20 31 48	39.6899	.00000	.99999	
19 63 17	7.4803	.00018	.99988		20 32 47	36.8030	.00000	.99999	
19 64 16	7.5667	.00019	.99987		20 33 46	34.0530	.00000	.99999	
19 65 15	7.6894	.00020	.99987		20 34 45	31.4396	.00000	.99999	
19 66 14	7.8485	.00021	.99986		20 35 44	28.9621	.00000	.99999	
19 67 13	8.0439	.00022	.99986		20 36 43	26.6212	.00000	.99999	
19 68 12	8.2758	.00023	.99985		20 37 42	24.4167	.00000	.99999	
19 69 11	8.5439	.00024	.99985		20 38 41	22.3485	.00000	.99999	
19 70 10	8.8485	.00025	.99984		20 39 40	20.4167	.00000	.99999	
19 71 9	9.1894	.00026	.99984		20 40 39	18.6212	.00000	.99999	
19 72 8	9.5667	.00027	.99983		20 41 38	16.9621	.00000	.99999	
19 73 7	9.9803	.00028	.99983		20 42 37	15.4396	.00000	.99999	
19 74 6	10.4303	.00029	.99982		20 43 36	14.0530	.00000	.99999	
19 75 5	10.9167	.00030	.99982		20 44 35	12.8030	.00000	.99999	
19 76 4	11.4394	.00031	.99981		20 45 34	11.6899	.00000	.99999	
19 77 3	12.0000	.00032	.99981		20 46 33	10.7121	.00000	.99999	
19 78 2	12.6000	.00033	.99980		20 47 32	9.8712	.00000	.99999	
19 79 1	13.2500	.00034	.99980		20 48 31	9.1667	.00000	.99999	
19 80 0	13.9639	.00035	.99979		20 49 30	8.5985	.00000	.99999	
20 0 79	14.7500	.00036	.99979		20 50 29	8.1667	.00001	.99979	

(5)

TABLE E

U	V	W	X2	P(41) CUM P(EE)	U	V	W	X2	P(41) CUM P(EE)
20 51 28	7.6712	.00013	.99986		21 21 57	72.6682	.00000	.99999	
20 52 27	7.7121	.00014	.99986		21 22 56	67.9091	.00000	.99999	
20 53 26	7.8494	.00014	.99983		21 23 55	63.8864	.00000	.99999	
20 54 25	7.9939	.00014	.99983		21 24 54	60.0030	.00000	.99999	
20 55 24	8.0530	.00013	.99985		21 25 53	56.2530	.00000	.99999	
20 56 23	8.4394	.00011	.99988		21 26 52	52.6364	.00000	.99999	
20 57 22	8.9621	.00009	.99990		21 27 51	49.1591	.00000	.99999	
20 58 21	9.6212	.00007	.99993		21 28 50	45.8182	.00000	.99999	
20 59 20	10.4167	.00005	.99993		21 29 49	42.6136	.00000	.99999	
20 60 19	11.3485	.00003	.99995		21 30 48	39.5455	.00000	.99999	
20 61 18	12.4167	.00002	.99997		21 31 47	36.6236	.00000	.99999	
20 62 17	13.6212	.00001	.99997		21 32 46	33.8182	.00000	.99999	
20 63 16	14.9621	.00001	.99995		21 33 45	31.1591	.00000	.99999	
20 64 15	16.4394	.00000	.99996		21 34 44	28.6364	.00000	.99999	
20 65 14	18.0530	.00000	.99995		21 35 43	26.2500	.00000	.99999	
20 66 13	19.8030	.00000	.99994		21 36 42	24.0000	.00000	.99997	
20 67 12	21.6899	.00000	.99997		21 37 41	21.8864	.00000	.99999	
20 68 11	23.7121	.00000	.99998		21 38 40	19.9091	.00000	.99997	
20 69 10	25.8712	.00000	.99999		21 39 39	18.0682	.00000	.99997	
20 70 9	28.1667	.00000	.99999		21 40 38	16.3636	.00001	.99997	
20 71 8	30.5985	.00000	.99999		21 41 37	14.7955	.00001	.99997	
20 72 7	33.1667	.00000	.99999		21 42 36	13.3636	.00002	.99996	
20 73 6	35.8712	.00000	.99999		21 43 35	12.0682	.00003	.99997	
20 74 5	38.7121	.00000	.99999		21 44 34	10.8991	.00004	.99995	
20 75 4	41.6899	.00000	.99999		21 45 33	9.8864	.00005	.99995	
20 76 3	44.8030	.00000	.99999		21 46 32	9.0000	.00006	.99996	
20 77 2	48.0530	.00000	.99999		21 47 31	8.2500	.00007	.99996	
20 78 1	51.4394	.00000	.99999		21 48 30	7.6364	.00008	.99997	
20 79 0	55.0621	.00000	.99999		21 49 29	7.1591	.00009	.99996	
21 0 78	58.9491	.00000	.99999		21 50 28	6.8182	.00010	.99997	
21 1 77	63.0864	.00000	.99999		21 51 27	6.5136	.00011	.99996	
21 2 76	67.4800	.00000	.99999		21 52 26	6.2500	.00012	.99997	
21 3 75	72.1250	.00000	.99999		21 53 25	6.0182	.00013	.99996	
21 4 74	77.0364	.00000	.99999		21 54 24	5.8182	.00014	.99995	
21 5 73	82.1591	.00000	.99999		21 55 23	5.6364	.00015	.99996	
21 6 72	87.5000	.00000	.99999		21 56 22	5.4636	.00016	.99995	
21 7 71	93.0636	.00000	.99999		21 57 21	5.3000	.00017	.99995	
21 8 70	98.8455	.00000	.99999		21 58 20	5.1455	.00018	.99996	
21 9 69	104.8436	.00000	.99999		21 59 19	5.0000	.00019	.99996	
21 10 68	111.0530	.00000	.99999		21 60 18	4.8636	.00020	.99997	
21 11 67	117.4800	.00000	.99999		21 61 17	4.7364	.00021	.99996	
21 12 66	124.1591	.00000	.99999		21 62 16	4.6182	.00022	.99995	
21 13 65	131.0636	.00000	.99999		21 63 15	4.5091	.00023	.99996	
21 14 64	138.2000	.00000	.99999		21 64 14	4.4091	.00024	.99996	
21 15 63	145.5864	.00000	.99999		21 65 13	4.3182	.00025	.99996	
21 16 62	153.2250	.00000	.99999		21 66 12	4.2364	.00026	.99995	
21 17 61	161.1167	.00000	.99999		21 67 11	4.1636	.00027	.99996	
21 18 60	169.2530	.00000	.99999		21 68 10	4.1000	.00028	.99996	
21 19 59	177.6364	.00000	.99999		21 69 9	4.0455	.00029	.99997	
21 20 58	186.2536	.00000	.99999		21 70 8	4.0000	.00030	.99999	

(6)

TABLE E

CHE SQUARE - P(41/31), P(44/9), P(42/9) N(99)

U	V	W	X2	P(41) CUM P(EE)	U	V	W	X2	P(41) CUM P(EE)
21 71 7	31.1591	.00000	.99999		22 92 35	11.4394	.00000	.99999	
21 72 6	33.8182	.00000	.99999		22 93 34	10.2500	.00000	.99999	
21 73 5	36.6136	.00000	.99999		22 94 33	9.1667	.00001	.99999	
21 74 4	39.5455	.00000	.99999		22 95 32	8.2500	.00001	.99999	
21 75 3	42.6136	.00000	.99999		22 96 31	7.4394	.00001	.99999	
21 76 2	45.8182	.00000	.99999		22 97 30	6.7258	.00002	.99999	
21 77 1	49.1591	.00000	.99999		22 98 29	6.0939	.00002	.99999	
21 78 0	52.6364	.00000	.99999		22 99 28	5.5439	.00003	.99999	
22 0 77	56.2530	.00000	.99999		22 100 27	5.0621	.00003	.99999	
22 1 76	60.0030	.00000	.99999		22 101 26	4.6439	.00004	.99999	
22 2 75	63.8864	.00000	.99999		22 102 25	4.2758	.00004	.99999	
22 3 74	67.9091	.00000	.99999		22 103 24	3.9485	.00005	.99999	
22 4 73	72.1250	.00000	.99999		22 104 23	3.6585	.00005	.99999	
22 5 72	76.5364	.00000	.99999		22 105 22	3.4091	.00006	.99999	
22 6 71	81.1591	.00000	.99999		22 106 21	3.1985	.00006	.99999	
22 7 70	86.0030	.00000	.99999		22 107 20	3.0182	.00007	.99999	
22 8 69	91.0636	.00000	.99999		22 108 19	2.8639	.00007	.99999	
22 9 68	96.3455	.00000	.99999		22 109 18	2.7321	.00008	.99999	
22 10 67	101.8500	.00000	.99999		22 110 17	2.6194	.00008	.99999	
22 11 66	107.5818	.00000	.99999		22 111 16	2.5239	.00009	.99999	
22 12 65	113.5455	.00000	.99999		22 112 15	2.4439	.00009	.99999	
22 13 64	119.7500	.00000	.99999		22 113 14	2.3771	.00010	.99999	
22 14 63	126.1982	.00000	.99999		22 114 13	2.3218	.00010	.99999	
22 15 62	132.8909	.00000	.99999		22 115 12	2.2767	.00011	.99999	
22 16 61	139.8364	.00000	.99999		22 116 11	2.2413	.00011	.99999	
22 17 60	147.0364	.00000	.99999		22 117 10	2.2154	.00012	.99999	
22 18 59	154.4909	.00000	.99999		22 118 9	2.1985	.00012	.99999	
22 19 58	162.2030	.00000	.99999		22 119 8	2.1900	.00013	.99999	
22 20 57	170.1764	.00000	.99999		22 120 7	2.1894	.00013	.99999	
22 21 56	178.4136	.00000	.99999		22 121 6	2.1967	.00014	.99999	
22 22 55	186.9167	.00000	.99999		22 122 5	2.2109	.00014	.99999	
22 23 54	195.6909	.00000	.99999		22 123 4	2.2318	.00015	.99999	
22 24 53	204.7364	.00000	.99999		22 124 3	2.2594	.00015	.99999	
22 25 52	214.0591	.00000	.99999		22 125 2	2.2939	.00016	.99999	
22 26 51	223.6636	.00000	.99999		22 126 1	2.3350	.00016	.99999	
22 27 50	233.5500	.00000	.99999		22 127 0	2.3836	.00017	.99999	
22 28 49	243.7250	.00000	.99999		22 128 99	2.4394	.00017	.99999	
22 29 48	254.1982	.00000	.99999		22 129 98	2.5021	.00018	.99999	
22 30 47	264.9764	.00000	.99999		22 130 97	2.5718	.00018	.99999	
22 31 46	276.0636	.00000	.99999		22 131 96	2.6485	.00019	.99999	
22 32 45	287.4636	.00000	.99999		22 132 95	2.7318	.00019	.99999	
22 33 44	299.1818	.00000	.99999		22 133 94	2.8218	.00020	.99999	
22 34 43	311.2250	.00000	.99999		22 134 93	2.9182	.00020	.99999	
22 35 42	323.5909	.00000	.99999		22 135 92	3.0213	.00021	.99999	
22 36 41	336.2864	.00000	.99999		22 136 91	3.1318	.00021	.99999	
22 37 40	349.3167	.00000	.99999		22 137 90	3.2494	.00022	.99999	
22 38 39	362.6909	.00000	.99999		22 138 89	3.3741	.00022	.99999	
22 39 38	376.4136	.00000	.99999		22 139 88	3.5059	.00023	.99999	
22 40 37	390.4909	.00000	.99999		22 140 87	3.6450	.00023	.99999	
22 41 36	404.9250	.00000	.99999		22 141 86	3.7913	.00024	.99999	
22 42 35	419.7250	.00000	.99999		22 142 85	3.9450	.00024	.99999	
22 43 34	434.8909	.00000	.99999		22 143 84	4.1067	.00025	.99999	
22 44 33	450.4250	.00000	.99999		22 144 83	4.2764	.00025	.99999	
22 45 32	466.3364	.00000	.99999		22 145 82	4.4541	.00026	.99999	
22 46 31	482.6250	.00000	.99999		22 146 81	4.6394	.00026	.99999	
22 47 30	499.3000	.00000	.99999		22 147 80	4.8321	.00027	.99999	
22 48 29	516.3636	.00000	.99999		22 148 79	5.0336	.00027	.99999	
22 49 28	533.8182	.00000	.99999		22 149 78	5.2439	.00028	.99999	
22 50 27	551.6636	.00000	.99999		22 150 77	5.4636	.00028	.99999	
22 51 26	569.9000	.00000	.99999		22 151 76	5.6927	.00029	.99999	
22 52 25	588.5364	.00000	.99999		22 152 75	5.9318	.00029	.99999	
22 53 24	607.5764	.00000	.99999		22 153 74	6.1813	.00030	.99999	
22 54 23	627.0250	.00000	.99999		22 154 73	6.4418	.00030	.99999	
22 55 22	646.8909	.00000	.99999		22 155 72	6.7139	.00031	.99999	
22 56 21	667.1764	.00000	.99999		22 156 71	6.9971	.00031	.99999	
22 57 20	687.8909	.00000	.99999		22 157 70	7.2918	.00032	.99999	
22 58 19	709.0364	.00000	.99999		22 158 69	7.5985	.00032	.99999	
22 59 18	730.6167	.00000	.99999		22 159 68	7.9167	.00033	.99999	
22 60 17	752.6364	.00000	.99999		22 160 67	8.2471	.00033	.99999	
22 61 16	775.1000	.00000	.99999		22 161 66	8.5900	.00034	.99999	
22 62 15	798.0182	.00000	.99999		22 162 65	8.9459	.00034	.99999	
22 63 14	821.3909	.00000	.99999		22 163 64	9.3150	.00035	.99999	
22 64 13	845.2250	.00000	.99999		22 164 63	9.6977	.00035	.99999	
22 65 12	869.5250	.00000	.99999		22 165 62	10.0944	.00036	.99999	
22 66 11	894.2909	.00000	.99999		22 166 61	10.5056	.00036	.99999	
22 67 10	919.5250	.00000	.99999		22 167 60	10.9318	.00037	.99999	
22 68 9	945.2364	.00000	.99999		22 168 59	11.3736	.00037	.99999	
22 69 8	971.4250	.00000	.99999		22 169 58	11.8313	.00038	.99999	
22 70 7	998.1000	.00000	.99999		22 170 57	12.3054	.00038	.99999	
22 71 6	1025.2764	.00000	.99999		22 171 56	12.7967	.00039	.99999	
22 72 5	1052.9636	.00000	.99999		22 172 55	13.3047	.00039	.99999	
22 73 4	1081.1636	.00000	.99999		22 173 54	13.8294	.00040	.99999	
22 74 3	1109.8864	.00000	.99999		22 174 53	14.3713	.00040	.99999	
22 75 2	1139.1364	.00000	.99999		22 175 52	14.9309	.00041	.99999	
22 76 1	1168.9250	.00000	.99999		22 176 51	15.5085	.00041	.99999	
22 77 0	1199.2636	.00000	.99999		22 177 50	16.1047	.00042	.99999	
22 78 99	1230.1636	.00000	.99999		22 178 49	16.7194	.00042	.99999	
22 79 98	1261.6364	.00000	.99999		22 179 48	17.3531	.00043	.99999	
22 80 97	1293.6909	.00000	.99999		22 180 47	18.0064	.00043	.99999	
22 81 96	1326.3364	.00000	.99999		22 181 46	18.6794	.00044	.99999	
22 82 95	1359.5764	.00000	.99999		22 182 45	19.3727	.00044	.99999	
22 83 94	1393.4250	.00000	.99999		22 183 44	20.0867	.00045	.99999	
22 84 93	1427.8909	.00000	.99999		22 184 43	20.8213	.00045	.99999	
22 85 92	1462.9764	.00000	.99999		22 185 42	21.5771	.00046	.99999	
22 86 91	1498.6909	.00000	.99999		22 186 41	22.3547	.00046	.99999	
22 87 90	1535.0364	.00000	.99999		22 187 40	23.1547	.00047	.99999	
22 88 89	1572.0250	.00000	.99999		22 188 39	23.9777	.00047	.99999	
22 89 88	1609.6636	.00000	.99999		22 189 38	24.8233	.00048	.99999	
22 90 87	1647.9636	.00000	.99999		22 190 37	25.6921	.00048	.99999	
22 91 86	1686.9364	.00000	.99999		22 191 36	26.5847	.00049	.99999	
22 92 85	1726.5909	.00000	.99999		22 192 35	27.5007	.00049	.99999	
22 93 84	1766.9364	.00000	.99999		22 193 34	28.4407	.00050	.99999	
22 94 83	1807.9764	.00000	.99999		22 194 33	29.4054	.00050	.99999	
22 95 82	1849.7250	.00000	.99999		22 195 32	30.3954	.00051	.99999	
22 96 81	1892.1909	.00000	.99999		22 196 31	31.4104	.00051	.99999	
22 97 80	1935.3864	.00000	.99999		22 197 30	32.4511	.00052	.99999	
22 98 79	1979.3167	.00000	.99999		22 198 29	33.5182	.00052	.99999	
22 99 78	2023.9909	.00000	.99999		22 199 28	34.6121	.00053	.99999	
23 0 77	2069.4250	.00000	.99999		22 200 27	35.7336	.00053	.99999	
23 1 76	2115.6364	.00000	.99999		22 201 26	36.8833	.00054	.99999	
23 2 75	2162.6364	.00000	.99999		22 202 25	38.0618	.00054	.99999	
23 3 74	2210.4250	.00000	.99999		22 203 24	39.2694	.00055	.99999	
23 4 73	2258.9909	.00000	.99999		22 204 23	40.5067	.00055	.99999	
23 5 72	2308.3364	.00000	.99999		22 205 22	41.7733	.00056	.99999	
23 6 71	2358.4636	.00000	.99999		22 206 21	43.0694	.00056	.99999	
23 7 70	2409.3864	.00000	.99999		22 207 20	44.3954	.00057	.99999	
23 8 69	2461.1167	.00000	.99999		22 208 19	45.7518	.00057	.99999	
23 9 68	2513.6636	.00000	.99999		22 209 18	47.1394	.00058	.99999	
23 10 67	2567.0364	.00000	.99999		22 210 17	48.5585	.00058	.99999	
23 11 66	2621.2500	.00							



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TABLE E

CHI SQUARE - P(1/3), P(4/9), P(2/9) N=99

U	V	W	X2	P(A) CUM P(E)	U	V	W	X2	P(A) CUM P(E)
25 37 38	13.2045	.00001	.99889		25 11 63	103.0945	.00003	.99997	
25 36 37	13.5302	.00002	.99978		25 12 62	97.9329	.00007	.99993	
25 35 36	11.9318	.00004	.99957		25 13 61	92.9167	.00010	.99987	
25 34 35	11.5000	.00007	.99912		25 14 60	88.0303	.00010	.99999	
25 33 34	9.2045	.00012	.98714		25 15 59	83.2803	.00010	.99999	
25 32 33	8.1455	.00040	.97816		25 16 58	78.6667	.00020	.99999	
25 31 32	7.0227	.00030	.96768		25 17 57	74.1894	.00013	.99999	
25 30 31	5.1364	.00044	.95188		25 18 56	69.8485	.00010	.99999	
25 29 30	3.3864	.00060	.93505		25 19 55	65.6439	.00010	.99999	
25 28 29	4.7727	.00079	.91421		25 20 54	61.5758	.00010	.99999	
25 27 28	4.2955	.00097	.89268		25 21 53	57.6439	.00010	.99999	
25 26 27	3.9545	.00113	.87268		25 22 52	53.8485	.00010	.99999	
25 25 26	3.7500	.00125	.86185		25 23 51	50.1894	.00010	.99999	
25 24 25	3.6818	.00130	.85296		25 24 50	46.6667	.00010	.99999	
25 23 24	3.7500	.00127	.85935		25 25 49	43.2803	.00010	.99999	
25 22 23	3.9545	.00117	.87188		25 26 48	40.0303	.00010	.99999	
25 21 22	4.2955	.00102	.88765		25 27 47	36.9167	.00010	.99999	
25 20 21	4.7727	.00085	.90697		25 28 46	33.9394	.00010	.99999	
25 19 20	5.1364	.00063	.92824		25 29 45	31.0945	.00010	.99999	
25 18 19	5.1364	.00045	.95056		25 30 44	28.3939	.00010	.99999	
25 17 18	7.0227	.00030	.96738		25 31 43	25.8258	.00010	.99999	
25 16 17	9.0455	.00019	.97911		25 32 42	23.3939	.00010	.99999	
25 15 16	9.0455	.00011	.98826		25 33 41	21.2985	.00010	.99999	
25 14 15	10.5000	.00006	.99388		25 34 40	19.8394	.00010	.99999	
25 13 14	11.9318	.00003	.99649		25 35 39	18.1667	.00010	.99999	
25 12 13	13.5000	.00001	.99962		25 36 38	15.0303	.00010	.99999	
25 11 12	15.2045	.00001	.99945		25 37 37	13.2803	.00010	.99999	
25 10 11	17.2045	.00000	.99979		25 38 36	11.6667	.00010	.99999	
25 9 10	19.2227	.00000	.99993		25 39 35	10.1894	.00010	.99999	
25 8 9	21.1364	.00000	.99999		25 40 34	9.8485	.00010	.99999	
25 7 8	23.0455	.00000	.99999		25 41 33	9.6439	.00010	.99999	
25 6 7	25.7727	.00000	.99999		25 42 32	6.5758	.00010	.99999	
25 5 6	28.2955	.00000	.99999		25 43 31	5.6439	.00010	.99999	
25 4 5	30.9545	.00000	.99999		25 44 30	4.8485	.00010	.99999	
25 3 4	33.7500	.00000	.99999		25 45 29	4.1894	.00010	.99999	
25 2 3	36.6818	.00000	.99999		25 46 28	3.6667	.00010	.99999	
25 1 2	39.7500	.00000	.99999		25 47 27	3.2803	.00010	.99999	
25 0 1	42.9545	.00000	.99999		25 48 26	3.0303	.00010	.99999	
25 0 0	46.2955	.00000	.99999		25 49 25	2.9167	.00010	.99999	
25 0 0	168.8485	.00000	.99999		25 50 24	2.9394	.00010	.99999	
25 1 73	162.1894	.00000	.99999		25 51 23	3.0945	.00010	.99999	
25 2 72	155.6667	.00000	.99999		25 52 22	3.3939	.00010	.99999	
25 3 71	149.2803	.00000	.99999		25 53 21	3.8258	.00010	.99999	
25 4 70	143.3333	.00000	.99999		25 54 20	4.3939	.00010	.99999	
25 5 69	137.9167	.00000	.99999		25 55 19	5.0945	.00010	.99999	
25 6 68	132.9394	.00000	.99999		25 56 18	5.9394	.00010	.99999	
25 7 67	128.0945	.00000	.99999		25 57 17	6.9167	.00010	.99999	
25 8 66	123.3939	.00000	.99999		25 58 16	8.0303	.00010	.99999	
25 9 65	118.8258	.00000	.99999		25 59 15	9.2803	.00010	.99999	
25 10 64	114.3939	.00000	.99999		25 60 14	10.6667	.00010	.99999	

(9)

TABLE E

U	V	W	X2	P(A) CUM P(E)	U	V	W	X2	P(A) CUM P(E)
25 61 13	12.1894	.00002	.99750		26 36 37	13.1667	.00003	.99736	
25 62 12	13.8485	.00001	.99893		26 37 36	11.5076	.00005	.99478	
25 63 11	15.6439	.00000	.99986		26 38 35	9.9845	.00010	.98959	
25 64 10	17.5758	.00000	.99996		26 39 34	8.5985	.00017	.98126	
25 65 9	19.6439	.00000	.99996		26 40 33	7.3445	.00029	.96827	
25 66 8	21.8485	.00000	.99994		26 41 32	6.2348	.00047	.94826	
25 67 7	24.1894	.00000	.99999		26 42 31	5.2576	.00072	.92024	
25 68 6	26.6667	.00000	.99999		26 43 30	4.4167	.00113	.88663	
25 69 5	29.2803	.00000	.99999		26 44 29	3.7121	.00141	.84067	
25 70 4	32.0303	.00000	.99999		26 45 28	3.1439	.00182	.80442	
25 71 3	34.9167	.00000	.99999		26 46 27	2.7121	.00221	.76555	
25 72 2	37.9394	.00000	.99999		26 47 26	2.4167	.00254	.72482	
25 73 1	41.0945	.00000	.99999		26 48 25	2.2576	.00275	.69988	
25 74 0	44.3939	.00000	.99999		26 49 24	2.2348	.00281	.68675	
26 0 75	163.7121	.00000	.99999		26 50 23	2.3485	.00270	.70258	
26 1 74	157.1439	.00000	.99999		26 51 22	2.5985	.00243	.72578	
26 2 73	150.9167	.00000	.99999		26 52 21	2.9848	.00206	.76405	
26 3 72	144.1417	.00000	.99999		26 53 20	3.5076	.00163	.81962	
26 4 71	138.2576	.00000	.99999		26 54 19	4.1467	.00121	.86670	
26 5 70	132.2348	.00000	.99999		26 55 18	4.9621	.00083	.92614	
26 6 69	126.3485	.00000	.99999		26 56 17	5.9939	.00054	.94130	
26 7 68	120.5985	.00000	.99999		26 57 16	7.2576	.00032	.96551	
26 8 67	114.9848	.00000	.99999		26 58 15	8.1667	.00018	.98039	
26 9 66	109.5076	.00000	.99999		26 59 14	9.5076	.00009	.99743	
26 10 65	104.1667	.00000	.99999		26 60 13	10.9848	.00004	.99542	
26 11 64	98.9621	.00000	.99999		26 61 12	12.5985	.00002	.99405	
26 12 63	93.9399	.00000	.99999		26 62 11	14.3485	.00001	.99927	
26 13 62	88.9621	.00000	.99999		26 63 10	16.2348	.00000	.99975	
26 14 61	84.1667	.00000	.99999		26 64 9	18.2576	.00000	.99992	
26 15 60	79.5076	.00000	.99999		26 65 8	20.4167	.00000	.99997	
26 16 59	74.9167	.00000	.99999		26 66 7	22.7121	.00000	.99999	
26 17 58	70.3945	.00000	.99999		26 67 6	25.1439	.00000	.99999	
26 18 57	66.3485	.00000	.99999		26 68 5	27.7121	.00000	.99999	
26 19 56	62.2348	.00000	.99999		26 69 4	30.4167	.00000	.99999	
26 20 55	58.2576	.00000	.99999		26 70 3	33.2576	.00000	.99999	
26 21 54	54.4167	.00000	.99999		26 71 2	36.2348	.00000	.99999	
26 22 53	50.7121	.00000	.99999		26 72 1	39.3485	.00000	.99999	
26 23 52	47.1439	.00000	.99999		26 73 0	42.5985	.00000	.99999	
26 24 51	43.7121	.00000	.99999		27 0 72	158.7273	.00000	.99999	
26 25 50	40.4167	.00000	.99999		27 1 71	152.2500	.00000	.99999	
26 26 49	37.2576	.00000	.99999		27 2 70	145.9091	.00000	.99999	
26 27 48	34.2348	.00000	.99999		27 3 69	139.7045	.00000	.99999	
26 28 47	31.3485	.00000	.99999		27 4 68	133.6364	.00000	.99999	
26 29 46	28.5985	.00000	.99999		27 5 67	127.7045	.00000	.99999	
26 30 45	25.9167	.00000	.99999		27 6 66	121.9091	.00000	.99999	
26 31 44	23.5076	.00000	.99999		27 7 65	116.2500	.00000	.99999	
26 32 43	21.1667	.00000	.99999		27 8 64	110.7273	.00000	.99999	
26 33 42	18.9621	.00000	.99999		27 9 63	105.3485	.00000	.99999	
26 34 41	16.9399	.00000	.99999		27 10 62	100.1439	.00000	.99999	
26 35 40	14.9621	.00001	.99973		27 11 61	94.9773	.00000	.99999	

(10)

TABLE E

CHI SQUARE - P(1/3), P(4/9), P(2/9) N=99

U	V	W	X2	P(A)	CUM P(E)	U	V	W	X2	P(A)	CUM P(E)
27	12	60	94.0000	.00000	.99999	27	62	15	15.0000	.00000	.99956
27	13	59	85.1591	.00000	.99999	27	63	9	16.9773	.00000	.99986
27	14	58	80.4545	.00000	.99999	27	64	8	19.0909	.00000	.99996
27	15	57	75.8864	.00000	.99999	27	65	7	21.3409	.00000	.99998
27	16	56	71.4545	.00000	.99999	27	66	6	23.7273	.00000	.99999
27	17	55	67.1591	.00000	.99999	27	67	5	26.2500	.00000	.99999
27	18	54	63.0000	.00000	.99999	27	68	4	28.9091	.00000	.99999
27	19	53	59.9773	.00000	.99999	27	69	3	31.7045	.00000	.99999
27	20	52	57.0949	.00000	.99999	27	70	2	34.6364	.00000	.99999
27	21	51	54.3449	.00000	.99999	27	71	1	37.7045	.00000	.99999
27	22	50	51.7273	.00000	.99999	27	72	0	40.9091	.00000	.99999
27	23	49	49.2500	.00000	.99999	28	0	71	147.5076	.00000	.99999
27	24	48	46.9591	.00000	.99999	28	1	70	141.2576	.00000	.99999
27	25	47	44.7045	.00000	.99999	28	2	69	141.2576	.00000	.99999
27	26	46	42.5000	.00000	.99999	28	3	68	135.1439	.00000	.99999
27	27	45	41.7045	.00000	.99999	28	4	67	129.1667	.00000	.99999
27	28	44	38.9691	.00000	.99999	28	5	66	123.3258	.00000	.99999
27	29	43	35.2500	.00000	.99999	28	6	65	117.6212	.00000	.99999
27	30	42	33.7273	.00000	.99999	28	7	64	112.0530	.00000	.99999
27	31	41	31.3409	.00000	.99999	28	8	63	106.6212	.00000	.99999
27	32	40	29.1969	.00000	.99999	28	9	62	101.3258	.00000	.99999
27	33	39	27.1973	.00001	.99987	28	10	61	96.1667	.00000	.99999
27	34	38	25.3006	.00001	.99984	28	11	60	91.1439	.00000	.99999
27	35	37	23.4545	.00001	.99981	28	12	59	86.2576	.00000	.99999
27	36	36	21.6545	.00001	.99978	28	13	58	81.5076	.00000	.99999
27	37	35	9.8654	.00000	.99910	28	14	57	76.9439	.00000	.99999
27	38	34	8.4545	.00001	.99799	28	15	56	72.4167	.00000	.99999
27	39	33	7.1591	.00032	.96519	28	16	55	68.0758	.00000	.99999
27	40	32	6.0000	.00054	.94163	28	17	54	63.8712	.00000	.99999
27	41	31	4.9773	.00084	.90447	28	18	53	59.8038	.00000	.99999
27	42	30	4.0709	.00123	.86556	28	19	52	55.8712	.00000	.99999
27	43	29	3.3409	.00172	.81675	28	20	51	52.0758	.00000	.99999
27	44	28	2.7273	.00227	.77421	28	21	50	48.4167	.00000	.99999
27	45	27	2.2500	.00286	.72894	28	22	49	44.8939	.00000	.99999
27	46	26	1.7045	.00352	.68276	28	23	48	41.4167	.00000	.99999
27	47	25	1.17045	.00426	.63595	28	24	47	38.2576	.00000	.99999
27	48	24	1.6364	.00342	.57933	28	25	46	35.1439	.00000	.99999
27	49	23	1.7045	.00374	.58699	28	26	45	32.1667	.00000	.99999
27	50	22	1.9291	.00344	.61189	28	27	44	29.3258	.00000	.99999
27	51	21	2.2500	.00297	.66564	28	28	43	26.6212	.00000	.99999
27	52	20	2.7273	.00240	.73059	28	29	42	24.0530	.00000	.99999
27	53	19	3.3409	.00181	.80623	28	30	41	21.6212	.00000	.99999
27	54	18	4.0709	.00127	.88508	28	31	40	19.3258	.00000	.99999
27	55	17	4.9773	.00083	.95931	28	32	39	17.1667	.00000	.99999
27	56	16	6.0000	.00051	.94393	28	33	38	15.1439	.00000	.99999
27	57	15	7.1591	.00028	.96942	28	34	37	13.2576	.00000	.99999
27	58	14	8.4545	.00016	.99176	28	35	36	11.5076	.00000	.99999
27	59	13	9.8654	.00009	.99234	28	36	35	9.9439	.00010	.99920
27	60	12	1.4545	.00003	.99644	28	37	34	8.4167	.00019	.99789
27	61	11	13.1591	.00001	.99982	28	38	33	7.0756	.00034	.99221



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TABLE E

CHI SQUARE - P(1/3), P(1/9), P(2/9) N=99

U	V	W	X2	PEA	CUM	PEE	U	V	W	X2	PEA	CUM	PEE
29 67	3	24.9167	.00000	.99999			30 46	23	.4091	.00717	.19057		
29 68	2	31.7576	.00000	.99999			30 47	22	.4773	.00701	.20463		
29 69	1	34.7348	.00000	.99999			30 48	21	.6818	.00643	.27198		
29 70	0	37.8485	.00000	.99999			30 49	20	1.0227	.00551	.37340		
30 1	69	104.8818	.00000	.99999			30 50	19	1.5000	.00441	.49351		
30 2	68	138.4773	.00000	.99999			30 51	18	2.1136	.00329	.63205		
30 3	67	152.4891	.00000	.99999			30 52	17	2.8636	.00227	.73985		
30 4	66	126.4773	.00000	.99999			30 53	16	3.7589	.00146	.85989		
30 5	65	123.8818	.00000	.99999			30 54	15	4.7727	.00086	.92194		
30 6	64	113.4227	.00000	.99999			30 55	14	.318	.00047	.94779		
30 7	63	109.3500	.00000	.99999			30 56	13	.273	.00024	.97426		
30 8	62	104.1136	.00000	.99999			30 57	12	.2591	.00011	.98837		
30 9	61	98.8636	.00000	.99999			30 58	11	10.2273	.00004	.99521		
30 10	60	93.7500	.00000	.99999			30 59	10	11.9318	.00002	.99820		
30 11	59	88.7727	.00000	.99999			30 60	9	13.7727	.00001	.99943		
30 12	58	83.9318	.00000	.99999			30 61	8	15.7500	.00000	.99983		
30 13	57	79.2273	.00000	.99999			30 62	7	17.8636	.00000	.99996		
30 14	56	74.5591	.00000	.99999			30 63	6	20.1136	.00000	.99998		
30 15	55	70.2273	.00000	.99999			30 64	5	22.5000	.00000	.99999		
30 16	54	65.9318	.00000	.99999			30 65	4	25.0227	.00000	.99999		
30 17	53	61.7727	.00000	.99999			30 66	3	27.6818	.00000	.99999		
30 18	52	57.7500	.00000	.99999			30 67	2	30.4773	.00000	.99999		
30 19	51	53.8636	.00000	.99999			30 68	1	33.4991	.00000	.99999		
30 20	50	50.1136	.00000	.99999			30 69	0	36.4773	.00000	.99999		
30 21	49	46.5000	.00000	.99999			31 0	60	140.3030	.00000	.99999		
30 22	48	43.0227	.00000	.99999			31 1	59	134.1894	.00000	.99999		
30 23	47	39.6818	.00000	.99999			31 2	58	128.2121	.00000	.99999		
30 24	46	36.4773	.00000	.99999			31 3	57	122.3712	.00000	.99999		
30 25	45	33.4091	.00000	.99999			31 4	56	116.6667	.00000	.99999		
30 26	44	30.4773	.00000	.99999			31 5	55	111.2985	.00000	.99999		
30 27	43	27.6818	.00000	.99999			31 6	54	106.6667	.00000	.99999		
30 28	42	25.0227	.00000	.99999			31 7	53	102.3712	.00000	.99999		
30 29	41	22.5000	.00000	.99999			31 8	52	98.2121	.00000	.99999		
30 30	40	20.1136	.00000	.99999			31 9	51	94.1894	.00000	.99999		
30 31	39	17.8636	.00000	.99999			31 10	50	90.3030	.00000	.99999		
30 32	38	15.7500	.00000	.99999			31 11	49	86.5594	.00000	.99999		
30 33	37	13.7273	.00000	.99999			31 12	48	82.9394	.00000	.99999		
30 34	36	11.9318	.00000	.99999			31 13	47	79.4621	.00000	.99999		
30 35	35	10.2273	.00000	.99999			31 14	46	76.1212	.00000	.99999		
30 36	34	8.5591	.00000	.99999			31 15	45	72.9167	.00000	.99999		
30 37	33	7.2273	.00000	.99999			31 16	44	69.8485	.00000	.99999		
30 38	32	6.0591	.00000	.99999			31 17	43	66.9167	.00000	.99999		
30 39	31	5.4727	.00000	.99999			31 18	42	64.1136	.00000	.99999		
30 40	30	5.7500	.00000	.99999			31 19	41	61.4991	.00000	.99999		
30 41	29	5.8636	.00000	.99999			31 20	40	58.9394	.00000	.99999		
30 42	28	5.1136	.00000	.99999			31 21	39	56.5530	.00000	.99999		
30 43	27	4.5000	.00000	.99999			31 22	38	54.3030	.00000	.99999		
30 44	26	4.0427	.00000	.99999			31 23	37	52.1894	.00000	.99999		
30 45	25	.6818	.00000	.99999			31 24	36	50.1212	.00000	.99999		
30 46	24	.4773	.00000	.99999			31 25	35	48.2121	.00000	.99999		

(13)

TABLE E

U	V	W	X2	PEA	CUM	PEE	U	V	W	X2	PEA	CUM	PEE
31 26	42	25.6667	.00000	.99999			32 7	60	96.7803	.00000	.99999		
31 27	41	23.0985	.00000	.99999			32 8	59	91.7121	.00000	.99999		
31 28	40	20.6667	.00000	.99999			32 9	58	86.7803	.00000	.99999		
31 29	39	18.3712	.00000	.99999			32 10	57	81.9848	.00000	.99999		
31 30	38	16.2121	.00000	.99999			32 11	56	77.3258	.00000	.99999		
31 31	37	14.1894	.00000	.99999			32 12	55	72.8039	.00000	.99999		
31 32	36	12.3030	.00000	.99999			32 13	54	68.4167	.00000	.99999		
31 33	35	10.5530	.00000	.99999			32 14	53	64.1667	.00000	.99999		
31 34	34	8.9394	.00000	.99999			32 15	52	60.0530	.00000	.99999		
31 35	33	7.4621	.00000	.99999			32 16	51	56.0758	.00000	.99999		
31 36	32	6.1212	.00000	.99999			32 17	50	52.2346	.00000	.99999		
31 37	31	4.9167	.00000	.99999			32 18	49	48.5593	.00000	.99999		
31 38	30	3.8485	.00000	.99999			32 19	48	44.9621	.00000	.99999		
31 39	29	2.9167	.00000	.99999			32 20	47	41.5513	.00000	.99999		
31 40	28	2.1212	.00000	.99999			32 21	46	38.2346	.00000	.99999		
31 41	27	1.4621	.00000	.99999			32 22	45	35.0758	.00000	.99999		
31 42	26	.9394	.00000	.99999			32 23	44	32.0530	.00000	.99999		
31 43	25	.5530	.00000	.99999			32 24	43	29.1667	.00000	.99999		
31 44	24	.3030	.00000	.99999			32 25	42	26.4167	.00000	.99999		
31 45	23	.1894	.00000	.99999			32 26	41	23.8039	.00000	.99999		
31 46	22	.1212	.00000	.99999			32 27	40	21.3258	.00000	.99999		
31 47	21	.0747	.00000	.99999			32 28	39	18.9667	.00000	.99999		
31 48	20	.0467	.00000	.99999			32 29	38	16.7803	.00000	.99999		
31 49	19	1.0985	.00000	.99999			32 30	37	14.7121	.00000	.99999		
31 50	18	1.6667	.00000	.99999			32 31	36	12.7803	.00000	.99999		
31 51	17	2.3712	.00000	.99999			32 32	35	10.9848	.00000	.99999		
31 52	16	3.2121	.00000	.99999			32 33	34	9.3258	.00000	.99999		
31 53	15	4.1894	.00000	.99999			32 34	33	7.8039	.00000	.99999		
31 54	14	5.3030	.00000	.99999			32 35	32	6.4167	.00000	.99999		
31 55	13	6.5530	.00000	.99999			32 36	31	5.1667	.00000	.99999		
31 56	12	7.9394	.00000	.99999			32 37	30	4.0530	.00000	.99999		
31 57	11	9.4621	.00000	.99999			32 38	29	3.0758	.00000	.99999		
31 58	10	11.1212	.00000	.99999			32 39	28	2.2346	.00000	.99999		
31 59	9	12.9167	.00000	.99999			32 40	27	1.5513	.00000	.99999		
31 60	8	14.8485	.00000	.99999			32 41	26	.9621	.00000	.99999		
31 61	7	16.9167	.00000	.99999			32 42	25	.5503	.00000	.99999		
31 62	6	19.1212	.00000	.99999			32 43	24	.2346	.00000	.99999		
31 63	5	21.4621	.00000	.99999			32 44	23	.0758	.00000	.99999		
31 64	4	23.9394	.00000	.99999			32 45	22	.0530	.00000	.99999		
31 65	3	26.5530	.00000	.99999			32 46	21	.1667	.00000	.99999		
31 66	2	29.3030	.00000	.99999			32 47	20	.4167	.00000	.99999		
31 67	1	32.1894	.00000	.99999			32 48	19	.8039	.00000	.99999		
31 68	0	35.2121	.00000	.99999			32 49	18	1.3258	.00000	.99999		
32 0	67	136.3758	.00000	.99999			32 50	17	1.9848	.00000	.99999		
32 1	66	130.0530	.00000	.99999			32 51	16	2.7803	.00000	.99999		
32 2	65	124.1667	.00000	.99999			32 52	15	3.7121	.00000	.99999		
32 3	64	118.8167	.00000	.99999			32 53	14	4.7803	.00000	.99999		
32 4	63	113.8030	.00000	.99999			32 54	13	5.9848	.00000	.99999		
32 5	62	108.9394	.00000	.99999			32 55	12	7.3258	.00000	.99999		
32 6	61	104.1894	.00000	.99999			32 56	11	8.8039	.00000	.99999		

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TABLE E

CHI SQUARE - P(1/3), P(1/9), P(2/9) N=99

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TABLE E

CHI SQUARE - P(1/3), P(4/9), P(2/9) N=99

U	V	W	X2	P(4) CUM P(4)	U	V	W	X2	P(4) CUM P(4)
35	56	8	12.3030	.00001	36	41	22	.4773	.00000
35	57	7	11.1899	.00000	36	42	21	.4091	.00721
35	58	6	10.2121	.00000	36	43	20	.4773	.00704
35	59	5	10.3712	.00000	36	44	19	.6818	.00640
35	60	4	20.6667	.00000	36	45	18	1.0227	.00541
35	61	3	23.6985	.00000	36	46	17	1.5000	.00423
35	62	2	23.6667	.00000	36	47	16	2.1136	.00306
35	63	1	28.3712	.00000	36	48	15	2.8636	.00204
35	64	0	31.6121	.00000	36	49	14	3.7500	.00125
35	65	0	12.6618	.00000	36	50	13	4.7727	.00070
35	66	0	11.9227	.00000	36	51	12	5.9318	.00036
35	67	0	10.9500	.00000	36	52	11	7.2273	.00018
35	68	0	10.4136	.00000	36	53	10	8.6591	.00007
35	69	0	9.8836	.00000	36	54	9	10.2273	.00003
35	70	0	9.3500	.00000	36	55	8	11.9318	.00001
35	71	0	8.8177	.00000	36	56	7	13.7727	.00000
35	72	0	8.2836	.00000	36	57	6	15.7500	.00000
35	73	0	7.7473	.00000	36	58	5	17.8636	.00000
35	74	0	7.2091	.00000	36	59	4	20.1136	.00000
35	75	0	6.6723	.00000	36	60	3	22.5000	.00000
35	76	0	6.1351	.00000	36	61	2	25.0227	.00000
35	77	0	5.5977	.00000	36	62	1	27.6818	.00000
35	78	0	5.0600	.00000	36	63	0	30.4773	.00000
35	79	0	4.5227	.00000	36	64	0	33.4121	.00000
35	80	0	3.9854	.00000	36	65	0	36.4000	.00000
35	81	0	3.4473	.00000	36	66	0	39.4318	.00000
35	82	0	2.9091	.00000	36	67	0	42.5000	.00000
35	83	0	2.3712	.00000	36	68	0	45.6121	.00000
35	84	0	1.8336	.00000	36	69	0	48.7727	.00000
35	85	0	1.2959	.00000	36	70	0	51.9818	.00000
35	86	0	0.7577	.00000	36	71	0	55.2318	.00000
35	87	0	0.2191	.00000	36	72	0	58.5227	.00000
35	88	0	0.0000	.00000	36	73	0	61.8636	.00000
35	89	0	0.0000	.00000	36	74	0	65.2500	.00000
35	90	0	0.0000	.00000	36	75	0	68.6818	.00000
35	91	0	0.0000	.00000	36	76	0	72.1577	.00000
35	92	0	0.0000	.00000	36	77	0	75.6818	.00000
35	93	0	0.0000	.00000	36	78	0	79.2500	.00000
35	94	0	0.0000	.00000	36	79	0	82.8636	.00000
35	95	0	0.0000	.00000	36	80	0	86.5227	.00000
35	96	0	0.0000	.00000	36	81	0	90.2318	.00000
35	97	0	0.0000	.00000	36	82	0	93.9818	.00000
35	98	0	0.0000	.00000	36	83	0	97.7727	.00000
35	99	0	0.0000	.00000	36	84	0	101.6000	.00000

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TABLE E

U	V	W	X2	P(4) CUM P(4)	U	V	W	X2	P(4) CUM P(4)
37	27	35	14.7344	.00001	38	14	47	49.6212	.00000
37	28	34	12.8485	.00001	38	15	46	46.0536	.00000
37	29	33	11.0985	.00003	38	16	45	42.6212	.00000
37	30	32	9.4888	.00007	38	17	44	39.3258	.00000
37	31	31	8.0076	.00015	38	18	43	36.1667	.00000
37	32	30	6.6667	.00029	38	19	42	33.1439	.00000
37	33	29	5.4621	.00053	38	20	41	30.2576	.00000
37	34	28	4.3939	.00091	38	21	40	27.5076	.00000
37	35	27	3.4621	.00146	38	22	39	24.8939	.00000
37	36	26	2.6667	.00219	38	23	38	22.4167	.00000
37	37	25	2.0076	.00307	38	24	37	20.0798	.00000
37	38	24	1.4888	.00406	38	25	36	17.8712	.00000
37	39	23	1.0985	.00527	38	26	35	15.8836	.00000
37	40	22	.8485	.00672	38	27	34	14.0712	.00001
37	41	21	.7344	.00841	38	28	33	12.4076	.00002
37	42	20	.7576	.00614	38	29	32	10.8167	.00004
37	43	19	.9167	.00571	38	30	31	9.2939	.00009
37	44	18	1.2181	.00493	38	31	30	7.8276	.00019
37	45	17	1.6439	.00395	38	32	29	6.4076	.00035
37	46	16	2.2121	.00292	38	33	28	5.1039	.00061
37	47	15	2.9167	.00199	38	34	27	4.0076	.00091
37	48	14	3.7576	.00124	38	35	26	3.2558	.00135
37	49	13	4.7344	.00071	38	36	25	2.8212	.00224
37	50	12	5.8485	.00037	38	37	24	2.5536	.00363
37	51	11	7.0985	.00017	38	38	23	2.4212	.00551
37	52	10	8.4888	.00007	38	39	22	2.3258	.00852
37	53	9	10.0076	.00003	38	40	21	2.2667	.01240
37	54	8	11.6667	.00001	38	41	20	2.2576	.01639
37	55	7	13.4621	.00000	38	42	19	2.2576	.02145
37	56	6	15.3939	.00000	38	43	18	2.2576	.02763
37	57	5	17.4621	.00000	38	44	17	2.2576	.03499
37	58	4	19.6667	.00000	38	45	16	2.2576	.04354
37	59	3	22.0076	.00000	38	46	15	2.2576	.05339
37	60	2	24.4888	.00000	38	47	14	2.2576	.06454
37	61	1	27.0985	.00000	38	48	13	2.2576	.07709
37	62	0	29.8485	.00000	38	49	12	2.2576	.09104
37	63	0	32.7344	.00000	38	50	11	2.2576	.10639
37	64	0	35.7576	.00000	38	51	10	2.2576	.13304
37	65	0	38.9167	.00000	38	52	9	2.2576	.16109
37	66	0	42.2121	.00000	38	53	8	2.2576	.19054
37	67	0	45.6439	.00000	38	54	7	2.2576	.22149
37	68	0	49.2121	.00000	38	55	6	2.2576	.25394
37	69	0	52.9167	.00000	38	56	5	2.2576	.28789
37	70	0	56.7576	.00000	38	57	4	2.2576	.32334
37	71	0	60.7344	.00000	38	58	3	2.2576	.36029
37	72	0	64.8485	.00000	38	59	2	2.2576	.39874
37	73	0	69.0985	.00000	38	60	1	2.2576	.43869
37	74	0	73.4888	.00000	38	61	0	2.2576	.48014
37	75	0	78.0076	.00000	38	62	0	2.2576	.52309
37	76	0	82.6439	.00000	38	63	0	2.2576	.56754
37	77	0	87.4121	.00000	38	64	0	2.2576	.61349
37	78	0	92.3121	.00000	38	65	0	2.2576	.66094
37	79	0	97.3439	.00000	38	66	0	2.2576	.70989
37	80	0	102.5000	.00000	38	67	0	2.2576	.76034
37	81	0	107.7727	.00000	38	68	0	2.2576	.81229
37	82	0	113.1667	.00000	38	69	0	2.2576	.86574
37	83	0	118.6712	.00000	38	70	0	2.2576	.92069
37	84	0	124.2863	.00000	38	71	0	2.2576	.97714
37	85	0	129.9985	.00000	38	72	0	2.2576	.10369
37	86	0	135.8000	.00000	38	73	0	2.2576	.11024
37	87	0	141.6939	.00000	38	74	0	2.2576	.11779
37	88	0	147.6712	.00000	38	75	0	2.2576	.12624
37	89	0	153.7344	.00000	38	76	0	2.2576	.13559
37	90	0	159.8818	.00000	38	77	0	2.2576	.14584
37	91	0	166.1000	.00000	38	78	0	2.2576	.15699
37	92	0	172.4885	.00000	38	79	0	2.2576	.16904
37	93	0	178.9985	.00000	38	80	0	2.2576	.18199
37	94	0	185.6227	.00000	38	81	0	2.2576	.19584
37	95	0	192.3577	.00000	38	82	0	2.2576	.21059
37	96	0	199.1985	.00000	38	83	0	2.2576	.22624
37	97	0	206.1439	.00000	38	84	0	2.2576	.24279
37	98	0	213.1985	.00000	38	85	0	2.2576	.26024
37	99	0	220.3577	.00000	38	86	0	2.2576	.27859

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TABLE E

CHI SQUARE - P(1/3), P(4/9), P(2/9) N=99

U	V	W	X2	P(4)	CUM P(4)	U	V	W	X2	P(4)	CUM P(4)
39	2	58	100.0909	.00000	.99999	39	52	8	11.4545	.00001	.99819
39	3	57	94.9773	.00000	.99999	39	53	7	13.1591	.00000	.99968
39	4	56	90.0000	.00000	.99999	39	54	6	15.0000	.00000	.99991
39	5	55	85.1591	.00000	.99999	39	55	5	16.9773	.00000	.99998
39	6	54	80.4545	.00000	.99999	39	56	4	19.0909	.00000	.99999
39	7	53	75.8864	.00000	.99999	39	57	3	21.3439	.00000	.99999
39	8	52	71.4545	.00000	.99999	39	58	2	23.7273	.00000	.99999
39	9	51	67.1591	.00000	.99999	39	59	1	26.2500	.00000	.99999
39	10	50	63.0000	.00000	.99999	39	60	0	28.9091	.00000	.99999
39	11	49	58.9773	.00000	.99999	40	5	59	107.7121	.00000	.99999
39	12	48	55.0909	.00000	.99999	40	5	58	104.6667	.00000	.99999
39	13	47	51.3455	.00000	.99999	40	5	57	97.2576	.00000	.99999
39	14	46	47.7273	.00000	.99999	40	5	56	92.2348	.00000	.99999
39	15	45	44.2500	.00000	.99999	40	5	55	87.3645	.00000	.99999
39	16	44	40.9091	.00000	.99999	40	5	54	82.5945	.00000	.99999
39	17	43	37.7845	.00000	.99999	40	5	53	77.9848	.00000	.99999
39	18	42	34.6364	.00000	.99999	40	7	52	73.5076	.00000	.99999
39	19	41	31.7845	.00000	.99999	40	8	51	69.1667	.00000	.99999
39	20	40	28.9091	.00000	.99999	40	9	50	64.9621	.00000	.99999
39	21	39	26.2500	.00000	.99999	40	10	49	60.9621	.00000	.99999
39	22	38	23.7273	.00000	.99999	40	11	48	56.9621	.00000	.99999
39	23	37	21.3439	.00000	.99999	40	12	47	53.0769	.00000	.99999
39	24	36	19.0909	.00000	.99999	40	13	46	49.3877	.00000	.99999
39	25	35	16.9773	.00000	.99999	40	14	45	45.9848	.00000	.99999
39	26	34	15.0000	.00000	.99999	40	15	44	42.5985	.00000	.99999
39	27	33	13.1591	.00001	.99999	40	16	43	39.3485	.00000	.99999
39	28	32	11.4545	.00002	.99973	40	17	42	36.2348	.00000	.99999
39	29	31	9.8864	.00005	.99421	40	18	41	33.2576	.00000	.99999
39	30	30	8.4545	.00011	.98783	40	19	40	30.4167	.00000	.99999
39	31	29	7.1591	.00021	.97692	40	20	39	27.7121	.00000	.99999
39	32	28	6.0000	.00039	.95719	40	21	38	25.1439	.00000	.99999
39	33	27	4.9773	.00068	.92566	40	22	37	22.7121	.00000	.99999
39	34	26	4.0909	.00105	.88456	40	23	36	20.4167	.00000	.99999
39	35	25	3.3689	.00155	.82442	40	24	35	18.2576	.00000	.99999
39	36	24	2.7273	.00220	.74066	40	25	34	16.2348	.00000	.99999
39	37	23	2.2500	.00300	.64195	40	26	33	14.3485	.00001	.99964
39	38	22	1.9091	.00393	.53221	40	27	32	12.5985	.00001	.99964
39	39	21	1.7045	.00502	.43315	40	28	31	10.9484	.00003	.99968
39	40	20	1.6364	.00631	.35267	40	29	30	9.5076	.00006	.99934
39	41	19	1.6045	.00791	.30392	40	30	29	8.1667	.00012	.99677
39	42	18	1.6091	.00954	.26149	40	31	28	6.9621	.00023	.99172
39	43	17	2.2500	.00929	.26661	40	32	27	5.8939	.00041	.95441
39	44	16	2.7273	.00824	.27328	40	33	26	4.9621	.00067	.92377
39	45	15	3.3689	.00616	.28125	40	34	25	4.1667	.00102	.88861
39	46	14	4.0909	.00408	.28836	40	35	24	3.5876	.00146	.83926
39	47	13	4.9773	.00263	.29251	40	36	23	3.1258	.00203	.78197
39	48	12	6.0000	.00166	.29399	40	37	22	2.7985	.00281	.72011
39	49	11	7.1591	.00107	.29177	40	38	21	2.5488	.00379	.65661
39	50	10	8.4545	.00080	.29155	40	39	20	2.3248	.00501	.58667
39	51	9	9.8864	.00063	.29298	40	40	19	2.2576	.00651	.50961



# THIS PAGE IS BEST QUALITY PRACTICABLE FROM COPY FURNISHED TO DDC

TABLE E  
CHI SQUARE - P(41/3), P(44/9), P(42/9) N=99

U	V	W	X2	P(41/3) CUM P(41/3)	U	V	W	X2	P(44/9) CUM P(44/9)
42 22 35	21.4364	.00000	.99999		43 14 42	41.6667	.00000	.99999	
42 23 34	19.0227	.00000	.99999		43 15 41	38.5530	.00000	.99999	
42 24 33	17.6455	.00000	.99999		43 16 40	35.3750	.00000	.99999	
42 25 32	15.8065	.00000	.99999		43 17 39	32.7348	.00000	.99999	
42 26 31	13.5000	.00000	.99999		43 18 38	30.0303	.00000	.99999	
42 27 30	11.9318	.00000	.99999		43 19 37	27.4621	.00000	.99999	
42 28 29	10.5000	.00000	.99999		43 20 36	25.0303	.00000	.99999	
42 29 28	9.2205	.00000	.99999		43 21 35	22.7348	.00000	.99999	
42 30 27	8.0455	.00000	.99999		43 22 34	20.5750	.00000	.99999	
42 31 26	7.0227	.00000	.99999		43 23 33	18.5530	.00000	.99999	
42 32 25	6.1364	.00000	.99999		43 24 32	16.6667	.00000	.99999	
42 33 24	5.3864	.00000	.99999		43 25 31	14.9167	.00000	.99999	
42 34 23	4.7727	.00000	.99999		43 26 30	13.3030	.00000	.99999	
42 35 22	4.2555	.00000	.99999		43 27 29	11.8250	.00000	.99999	
42 36 21	3.8455	.00000	.99999		43 28 28	10.4848	.00000	.99999	
42 37 20	3.5000	.00000	.99999		43 29 27	9.2600	.00000	.99999	
42 38 19	3.2000	.00000	.99999		43 30 26	8.1212	.00000	.99999	
42 39 18	2.9500	.00000	.99999		43 31 25	7.0588	.00000	.99999	
42 40 17	2.7500	.00000	.99999		43 32 24	6.0588	.00000	.99999	
42 41 16	2.5955	.00000	.99999		43 33 23	5.2058	.00000	.99999	
42 42 15	2.4727	.00000	.99999		43 34 22	4.4848	.00000	.99999	
42 43 14	2.3864	.00000	.99999		43 35 21	3.8889	.00000	.99999	
42 44 13	2.3364	.00000	.99999		43 36 20	3.3955	.00000	.99999	
42 45 12	2.3227	.00000	.99999		43 37 19	2.9999	.00000	.99999	
42 46 11	2.3455	.00000	.99999		43 38 18	2.6889	.00000	.99999	
42 47 10	2.4000	.00000	.99999		43 39 17	2.4500	.00000	.99999	
42 48 9	2.5000	.00000	.99999		43 40 16	2.2667	.00000	.99999	
42 49 8	2.6455	.00000	.99999		43 41 15	2.1212	.00000	.99999	
42 50 7	2.8364	.00000	.99999		43 42 14	2.0000	.00000	.99999	
42 51 6	3.0727	.00000	.99999		43 43 13	1.8955	.00000	.99999	
42 52 5	3.3555	.00000	.99999		43 44 12	1.8000	.00000	.99999	
42 53 4	3.6827	.00000	.99999		43 45 11	1.7143	.00000	.99999	
42 54 3	4.0500	.00000	.99999		43 46 10	1.6389	.00000	.99999	
42 55 2	4.4667	.00000	.99999		43 47 9	1.5730	.00000	.99999	
42 56 1	4.9333	.00000	.99999		43 48 8	1.5167	.00000	.99999	
42 57 0	5.4555	.00000	.99999		43 49 7	1.4699	.00000	.99999	
43 0 56	5.9555	.00000	.99999		43 50 6	1.4333	.00000	.99999	
43 1 55	6.4455	.00000	.99999		43 51 5	1.4067	.00000	.99999	
43 2 54	6.9227	.00000	.99999		43 52 4	1.3889	.00000	.99999	
43 3 53	7.3955	.00000	.99999		43 53 3	1.3778	.00000	.99999	
43 4 52	7.8627	.00000	.99999		43 54 2	1.3727	.00000	.99999	
43 5 51	8.3250	.00000	.99999		43 55 1	1.3727	.00000	.99999	
43 6 50	8.7827	.00000	.99999		44 0 56	1.3778	.00000	.99999	
43 7 49	9.2364	.00000	.99999		44 1 55	1.3889	.00000	.99999	
43 8 48	9.6864	.00000	.99999		44 2 54	1.4067	.00000	.99999	
43 9 47	10.1333	.00000	.99999		44 3 53	1.4333	.00000	.99999	
43 10 46	10.5767	.00000	.99999		44 4 52	1.4699	.00000	.99999	
43 11 45	11.0167	.00000	.99999		44 5 51	1.5167	.00000	.99999	
43 12 44	11.4530	.00000	.99999		44 6 50	1.5730	.00000	.99999	
43 13 43	11.8848	.00000	.99999		44 7 49	1.6389	.00000	.99999	

(21)

TABLE E

U	V	W	X2	P(41/3) CUM P(41/3)	U	V	W	X2	P(44/9) CUM P(44/9)
44 7 48	65.5076	.00000	.99999		45 1 53	90.0682	.00000	.99999	
44 8 47	61.5303	.00000	.99999		45 2 52	85.3636	.00000	.99999	
44 9 46	57.6455	.00000	.99999		45 3 51	80.7955	.00000	.99999	
44 10 45	53.9667	.00000	.99999		45 4 50	76.3636	.00000	.99999	
44 11 44	50.4167	.00000	.99999		45 5 49	72.0682	.00000	.99999	
44 12 43	46.9948	.00000	.99999		45 6 48	67.9091	.00000	.99999	
44 13 42	43.6899	.00000	.99999		45 7 47	63.9064	.00000	.99999	
44 14 41	40.5000	.00000	.99999		45 8 46	60.0000	.00000	.99999	
44 15 40	37.5076	.00000	.99999		45 9 45	56.2500	.00000	.99999	
44 16 39	34.6212	.00000	.99999		45 10 44	52.6364	.00000	.99999	
44 17 38	31.8712	.00000	.99999		45 11 43	49.1591	.00000	.99999	
44 18 37	29.2576	.00000	.99999		45 12 42	45.8182	.00000	.99999	
44 19 36	26.7603	.00000	.99999		45 13 41	42.6136	.00000	.99999	
44 20 35	24.3899	.00000	.99999		45 14 40	39.5455	.00000	.99999	
44 21 34	22.2348	.00000	.99999		45 15 39	36.6136	.00000	.99999	
44 22 33	20.1667	.00000	.99999		45 16 38	33.8182	.00000	.99999	
44 23 32	18.2348	.00000	.99999		45 17 37	31.1591	.00000	.99999	
44 24 31	16.4399	.00000	.99999		45 18 36	28.6364	.00000	.99999	
44 25 30	14.7603	.00000	.99999		45 19 35	26.2500	.00000	.99999	
44 26 29	13.2576	.00000	.99999		45 20 34	24.0000	.00000	.99999	
44 27 28	11.8712	.00000	.99999		45 21 33	21.8864	.00000	.99999	
44 28 27	10.6212	.00000	.99999		45 22 32	19.9091	.00000	.99999	
44 29 26	9.5076	.00000	.99999		45 23 31	18.1682	.00000	.99999	
44 30 25	8.5303	.00000	.99999		45 24 30	16.6364	.00000	.99999	
44 31 24	7.6899	.00000	.99999		45 25 29	15.2955	.00000	.99999	
44 32 23	6.9667	.00000	.99999		45 26 28	14.1364	.00000	.99999	
44 33 22	6.3467	.00000	.99999		45 27 27	13.1364	.00000	.99999	
44 34 21	5.8250	.00000	.99999		45 28 26	12.2864	.00000	.99999	
44 35 20	5.3955	.00000	.99999		45 29 25	11.5767	.00000	.99999	
44 36 19	5.0303	.00000	.99999		45 30 24	10.9909	.00000	.99999	
44 37 18	4.7167	.00000	.99999		45 31 23	10.5200	.00000	.99999	
44 38 17	4.4489	.00000	.99999		45 32 22	10.1591	.00000	.99999	
44 39 16	4.2212	.00000	.99999		45 33 21	9.8909	.00000	.99999	
44 40 15	4.0333	.00000	.99999		45 34 20	9.6136	.00000	.99999	
44 41 14	3.8750	.00000	.99999		45 35 19	9.3273	.00000	.99999	
44 42 13	3.7455	.00000	.99999		45 36 18	9.0318	.00000	.99999	
44 43 12	3.6417	.00000	.99999		45 37 17	8.7273	.00000	.99999	
44 44 11	3.5617	.00000	.99999		45 38 16	8.4136	.00000	.99999	
44 45 10	3.5030	.00000	.99999		45 39 15	8.0909	.00000	.99999	
44 46 9	3.4633	.00000	.99999		45 40 14	7.7591	.00000	.99999	
44 47 8	3.4417	.00000	.99999		45 41 13	7.4182	.00000	.99999	
44 48 7	3.4364	.00000	.99999		45 42 12	7.0682	.00000	.99999	
44 49 6	3.4455	.00000	.99999		45 43 11	6.7091	.00000	.99999	
44 50 5	3.4699	.00000	.99999		45 44 10	6.3409	.00000	.99999	
44 51 4	3.5076	.00000	.99999		45 45 9	5.9636	.00000	.99999	
44 52 3	3.5583	.00000	.99999		45 46 8	5.5767	.00000	.99999	
44 53 2	3.6212	.00000	.99999		45 47 7	5.1818	.00000	.99999	
44 54 1	3.6948	.00000	.99999		45 48 6	4.7791	.00000	.99999	
44 55 0	3.7789	.00000	.99999		45 49 5	4.3682	.00000	.99999	
45 0 54	38.9091	.00000	.99999		45 50 4	3.9491	.00000	.99999	

(22)

TABLE E  
CHI SQUARE - P(41/3), P(44/9), P(42/9) N=99

U	V	W	X2	P(41) CUM P(41)	U	V	W	X2	P(44) CUM P(44)
45 51 3	21.4364	.00000	.99999		46 46 7	15.4394	.00000	.99999	
45 52 2	19.0227	.00000	.99999		46 47 6	16.4621	.00000	.99999	
45 53 1	17.6455	.00000	.99999		46 48 5	18.6212	.00000	.99999	
45 54 0	15.8065	.00000	.99999		46 49 4	20.9167	.00000	.99999	
46 0 53	13.5000	.00000	.99999		46 50 3	23.3485	.00000	.99999	
46 1 52	11.9318	.00000	.99999		46 51 2	25.9167	.00000	.99999	
46 2 51	10.5000	.00000	.99999		46 52 1	28.6212	.00000	.99999	
46 3 50	9.2205	.00000	.99999		46 53 0	31.4621	.00000	.99999	
46 4 49	8.0455	.00000	.99999		47 0 52	34.4394	.00000	.99999	
46 5 48	7.0227	.00000	.99999		47 1 51	37.5530	.00000	.99999	
46 6 47	6.1364	.00000	.99999		47 2 50	40.8000	.00000	.99999	
46 7 46	5.3864	.00000	.99999		47 3 49	44.1667	.00000	.99999	
46 8 45	4.7727	.00000	.99999		47 4 48	47.6667	.00000	.99999	
46 9 44	4.2555	.00000	.99999		47 5 47	51.3333	.00000	.99999	
46 10 43	3.8455	.00000	.99999		47 6 46	55.1667	.00000	.99999	
46 11 42	3.5000	.00000	.99999		47 7 45	59.0667	.00000	.99999	
46 12 41	3.1667	.00000	.99999		47 8 44	63.0000	.00000	.99999	
46 13 40	2.8889	.00000	.99999		47 9 43	67.0258	.00000	.99999	
46 14 39	2.6452	.00000	.99999		47 10 42	71.1333	.00000	.99999	
46 15 38	2.4271	.00000	.99999		47 11 41	75.3258	.00000	.99999	
46 16 37	2.2297	.00000	.99999		47 12 40	79.5939	.00000	.99999	
46 17 36	2.0495	.00000	.99999		47 13 39	83.9167	.00000	.99999	
46 18 35	1.8846	.00000	.99999		47 14 38	88.3000	.00000	.99999	
46 19 34	1.7333	.00000	.99999		47 15 37	92.7485	.00000	.99999	
46 20 33	1.5945	.00000	.99999		47 16 36	97.2667	.00000	.99999	
46 21 32	1.4682	.00000	.99999		47 17 35	101.8500	.00000	.99999	
46 22 31	1.3539	.00000	.99999		47 18 34	106.4939	.00000	.99999	
46 23 30	1.2500	.00000	.99999		47 19 33	111.2000	.00000	.99999	
46 24 29	1.1559	.00000	.99999		47 20 32	115.9758	.00000	.99999	
46 25 28	1.0712	.00000	.99999		47 21 31	120.8258	.00000	.99999	
46 26 27	0.9952	.00000	.99999		47 22 30	125.7485	.00000	.99999	
46 27 26	0.9277	.00000	.99999		47 23 29	130.7485	.00000	.99999	
46 28 25	0.8682	.00000	.99999		47 24 28	135.8258	.00000	.99999	
46 29 24	0.8167	.00000	.99999		47 25 27	140.9758	.00000	.99999	
46 30 23	0.7727	.00000	.99999		47 26 26	146.1939	.00000	.99999	
46 31 22	0.7333	.00000	.99999		47 27 25	151.4833	.00000	.99999	
46 32 21	0.6982	.00000	.99999		47 28 24	156.8500	.00000	.99999	
46 33 20	0.6667	.00000	.99999		47 29 23	162.2939	.00000	.99999	
46 34 19	0.6389	.00000	.99999		47 30 22	167.8000	.00000	.99999	
46 35 18	0.6143	.00000	.99999		47 31 21	173.3758	.00000	.99999	
46 36 17	0.5926	.00000	.99999		47 32 20	179.0258	.00000	.99999	
46 37 16	0.5727	.00000	.99999		47 33 19	184.7500	.00000	.99999	
46 38 15	0.5545	.00000	.99999		47 34 18	190.5439	.00000	.99999	
46 39 14	0.5378	.00000	.99999		47 35 17	196.4000	.00000	.99999	
46 40 13	0.5227	.00000	.99999		47 36 16	202.3258	.00000	.99999	
46 41 12	0.5091	.00000	.99999		47 37 15	208.3258	.00000	.99999	
46 42 11	0.4968	.00000	.99999		47 38 14	214.3939	.00000	.99999	
46 43 10	0.4859	.00000	.99999		47 39 13	220.5258	.00000	.99999	
46 44 9	0.4764	.00000	.99999		47 40 12	226.7258	.00000	.99999	
46 45 8	0.4682	.00000	.99999		47 41 11	232.9939	.00000	.99999	



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TABLE E

CHI SQUARE - P(4/3), P(4/9), P(2/2/9) N=99

U	V	W	X2	P(A)	CUM P(E)	U	V	W	X2	P(A)	CUM P(E)
49	37	13	12.5530	.00000	.99769	50	36	13	13.8939	.00001	.99968
49	38	12	13.1212	.00000	.99838	50	37	12	14.4167	.00001	.99997
49	39	11	13.8258	.00001	.99909	50	38	11	15.0758	.00001	.99993
49	40	10	14.6667	.00001	.99946	50	39	10	15.8712	.00000	.99967
49	41	9	15.6439	.00000	.99973	50	40	9	16.8036	.00000	.99984
49	42	8	16.7576	.00000	.99989	50	41	8	17.8712	.00000	.99993
49	43	7	18.0076	.00000	.99996	50	42	7	19.0758	.00000	.99997
49	44	6	19.3939	.00000	.99998	50	43	6	20.4167	.00000	.99998
49	45	5	20.9167	.00000	.99999	50	44	5	21.8939	.00000	.99999
49	46	4	22.5758	.00000	.99999	50	45	4	23.5076	.00000	.99999
49	47	3	24.3712	.00000	.99999	50	46	3	25.2576	.00000	.99999
49	48	2	26.3030	.00000	.99999	50	47	2	27.1439	.00000	.99999
49	49	1	28.3712	.00000	.99999	50	48	1	29.1667	.00000	.99999
50	50	0	30.5758	.00000	.99999	50	49	0	31.3258	.00000	.99999
50	49	0	31.8939	.00000	.99999	51	0	48	34.5455	.00000	.99999
50	48	1	31.5076	.00000	.99999	51	1	47	35.2500	.00000	.99999
50	47	2	32.2576	.00000	.99999	51	2	46	36.0909	.00000	.99999
50	46	3	33.1439	.00000	.99999	51	3	45	37.0667	.00000	.99999
50	45	4	34.1667	.00000	.99999	51	4	44	38.1118	.00000	.99999
50	44	5	35.3258	.00000	.99999	51	5	43	39.4318	.00000	.99999
50	43	6	36.6212	.00000	.99999	51	6	42	40.8182	.00000	.99999
50	42	7	38.0530	.00000	.99999	51	7	41	42.3409	.00000	.99999
50	41	8	39.6212	.00000	.99999	51	8	40	44.0000	.00000	.99999
50	40	9	41.3258	.00000	.99999	51	9	39	45.7955	.00000	.99999
50	39	10	43.1667	.00000	.99999	51	10	38	47.7273	.00000	.99999
50	38	11	45.1439	.00000	.99999	51	11	37	49.7955	.00000	.99999
50	37	12	47.2576	.00000	.99999	51	12	36	52.0000	.00000	.99999
50	36	13	49.5076	.00000	.99999	51	13	35	54.3409	.00000	.99999
50	35	14	51.8939	.00000	.99999	51	14	34	56.8182	.00000	.99999
50	34	15	54.4167	.00000	.99999	51	15	33	59.4318	.00000	.99999
50	33	16	57.0758	.00000	.99999	51	16	32	62.1667	.00000	.99999
50	32	17	59.8712	.00000	.99999	51	17	31	65.0667	.00000	.99999
50	31	18	62.8030	.00000	.99999	51	18	30	68.0909	.00000	.99999
50	30	19	65.8712	.00000	.99999	51	19	29	71.2500	.00000	.99999
50	29	20	69.0758	.00000	.99999	51	20	28	74.5455	.00000	.99999
50	28	21	72.4167	.00000	.99999	51	21	27	77.9773	.00000	.99999
50	27	22	75.8939	.00000	.99999	51	22	26	81.5455	.00000	.99999
50	26	23	79.5076	.00000	.99999	51	23	25	85.2500	.00000	.99999
50	25	24	83.2576	.00000	.99999	51	24	24	89.0909	.00000	.99999
50	24	25	87.1439	.00000	.99999	51	25	23	93.0667	.00000	.99999
50	23	26	91.1667	.00000	.99999	51	26	22	97.1667	.00000	.99999
50	22	27	95.3258	.00000	.99999	51	27	21	101.4318	.00000	.99999
50	21	28	99.6212	.00000	.99999	51	28	20	105.8182	.00000	.99999
50	20	29	104.0530	.00000	.99999	51	29	19	110.3409	.00000	.99999
50	19	30	108.6212	.00000	.99999	51	30	18	115.0000	.00000	.99999
50	18	31	113.3258	.00000	.99999	51	31	17	119.7955	.00000	.99999
50	17	32	118.1667	.00000	.99999	51	32	16	124.7273	.00000	.99999
50	16	33	123.1439	.00000	.99999	51	33	15	129.7955	.00000	.99999
50	15	34	128.2576	.00000	.99999	51	34	14	135.0000	.00000	.99999
50	14	35	133.5076	.00000	.99999	51	35	13	140.3409	.00000	.99999

(25)

TABLE E

U	V	W	X2	P(A)	CUM P(E)	U	V	W	X2	P(A)	CUM P(E)
51	36	12	13.8182	.00000	.99951	52	37	10	16.5985	.00000	.99969
51	37	11	14.4318	.00000	.99967	52	38	9	17.4394	.00000	.99985
51	38	10	15.1818	.00000	.99982	52	39	8	18.4167	.00000	.99997
51	39	9	16.0667	.00000	.99990	52	40	7	19.5303	.00000	.99998
51	40	8	16.9909	.00000	.99996	52	41	6	20.7803	.00000	.99999
51	41	7	18.0758	.00000	.99998	52	42	5	22.1667	.00000	.99999
51	42	6	19.3455	.00000	.99999	52	43	4	23.6894	.00000	.99999
51	43	5	20.9773	.00000	.99999	52	44	3	25.3665	.00000	.99999
51	44	4	22.8455	.00000	.99999	52	45	2	27.1439	.00000	.99999
51	45	3	24.9500	.00000	.99999	52	46	1	29.0758	.00000	.99999
51	46	2	27.3009	.00000	.99999	52	47	0	31.1439	.00000	.99999
51	47	1	29.8682	.00000	.99999	53	0	46	33.8030	.00000	.99999
51	48	0	32.5818	.00000	.99999	53	1	45	36.5894	.00000	.99999
52	0	47	35.3485	.00000	.99999	53	2	44	39.5167	.00000	.99999
52	1	46	38.1439	.00000	.99999	53	3	43	42.5985	.00000	.99999
52	2	45	40.9758	.00000	.99999	53	4	42	45.8667	.00000	.99999
52	3	44	43.8439	.00000	.99999	53	5	41	49.3905	.00000	.99999
52	4	43	46.7485	.00000	.99999	53	6	40	52.6667	.00000	.99999
52	5	42	49.6894	.00000	.99999	53	7	39	56.3712	.00000	.99999
52	6	41	52.6667	.00000	.99999	53	8	38	59.5212	.00000	.99999
52	7	40	55.7803	.00000	.99999	53	9	37	62.8030	.00000	.99999
52	8	39	58.9383	.00000	.99999	53	10	36	66.3030	.00000	.99999
52	9	38	62.1667	.00000	.99999	53	11	35	69.9530	.00000	.99999
52	10	37	65.4394	.00000	.99999	53	12	34	73.7121	.00000	.99999
52	11	36	68.7485	.00000	.99999	53	13	33	77.6621	.00000	.99999
52	12	35	72.0939	.00000	.99999	53	14	32	81.2121	.00000	.99999
52	13	34	75.3258	.00000	.99999	53	15	31	84.9167	.00000	.99999
52	14	33	78.5939	.00000	.99999	53	16	30	88.7485	.00000	.99999
52	15	32	81.8985	.00000	.99999	53	17	29	92.6667	.00000	.99999
52	16	31	85.2394	.00000	.99999	53	18	28	96.7121	.00000	.99999
52	17	30	88.6167	.00000	.99999	53	19	27	100.8621	.00000	.99999
52	18	29	92.0303	.00000	.99999	53	20	26	104.6394	.00000	.99999
52	19	28	95.4803	.00000	.99999	53	21	25	108.5530	.00000	.99999
52	20	27	98.9667	.00000	.99999	53	22	24	112.6030	.00000	.99999
52	21	26	102.4894	.00000	.99999	53	23	23	116.2894	.00000	.99999
52	22	25	106.0385	.00000	.99999	53	24	22	120.1167	.00000	.99999
52	23	24	109.7139	.00000	.99999	53	25	21	124.0303	.00000	.99999
52	24	23	113.4258	.00000	.99999	53	26	20	128.1667	.00000	.99999
52	25	22	117.1439	.00000	.99999	53	27	19	132.4394	.00000	.99999
52	26	21	120.8485	.00000	.99999	53	28	18	136.8667	.00000	.99999
52	27	20	124.6394	.00000	.99999	53	29	17	141.4303	.00000	.99999
52	28	19	128.5167	.00000	.99999	53	30	16	146.1667	.00000	.99999
52	29	18	132.4803	.00000	.99999	53	31	15	151.0000	.00000	.99999
52	30	17	136.5303	.00000	.99999	53	32	14	155.9303	.00000	.99999
52	31	16	140.6667	.00000	.99999	53	33	13	160.9530	.00000	.99999
52	32	15	144.8394	.00000	.99999	53	34	12	166.0303	.00000	.99999
52	33	14	149.0985	.00000	.99999	53	35	11	171.2667	.00000	.99999
52	34	13	153.4394	.00000	.99999	53	36	10	176.6667	.00000	.99999
52	35	12	157.8485	.00000	.99999	53	37	9	182.1667	.00000	.99999
52	36	11	162.3258	.00000	.99999	53	38	8	187.8030	.00000	.99999

(26)

TABLE E

CHI SQUARE - P(4/3), P(4/9), P(2/2/9) N=99

U	V	W	X2	P(A)	CUM P(E)
53	39	7	22.9167	.00000	.99999
53	40	6	24.1212	.00000	.99999
53	41	5	25.4621	.00000	.99999
53	42	4	26.9394	.00000	.99999
53	43	3	28.5530	.00000	.99999
53	44	2	30.3030	.00000	.99999
53	45	1	32.1894	.00000	.99999
53	46	0	34.2121	.00000	.99999
54	0	45	31.4091	.00000	.99999
54	1	44	32.3864	.00000	.99999
54	2	43	33.4000	.00000	.99999
54	3	42	34.4500	.00000	.99999
54	4	41	35.5364	.00000	.99999
54	5	40	36.6591	.00000	.99999
54	6	39	37.8182	.00000	.99999
54	7	38	39.0136	.00000	.99999
54	8	37	40.2455	.00000	.99999
54	9	36	41.5136	.00000	.99999
54	10	35	42.8182	.00000	.99999
54	11	34	44.1591	.00000	.99999
54	12	33	45.5364	.00000	.99999
54	13	32	46.9500	.00000	.99999
54	14	31	48.3982	.00000	.99999
54	15	30	49.8818	.00000	.99999
54	16	29	51.3982	.00000	.99999
54	17	28	52.9455	.00000	.99999
54	18	27	54.5236	.00000	.99999
54	19	26	56.1364	.00000	.99999
54	20	25	57.7818	.00000	.99999
54	21	24	59.4591	.00000	.99999
54	22	23	61.1682	.00000	.99999
54	23	22	62.9091	.00000	.99999
54	24	21	64.6818	.00000	.99999
54	25	20	66.4864	.00000	.99999
54	26	19	68.3218	.00000	.99999
54	27	18	70.1882	.00000	.99999
54	28	17	72.0864	.00000	.99999
54	29	16	74.0136	.00000	.99999
54	30	15	75.9691	.00000	.99999
54	31	14	77.9500	.00000	.99999
54	32	13	79.9564	.00000	.99999
54	33	12	81.9882	.00000	.99999
54	34	11	84.0455	.00000	.99999
54	35	10	86.1282	.00000	.99999
54	36	9	88.2364	.00000	.99999
54	37	8	90.3691	.00000	.99999
54	38	7	92.5264	.00000	.99999
54	39	6	94.7082	.00000	.99999
54	40	5	96.9136	.00000	.99999
54	41	4	99.1421	.00000	.99999
54	42	3	101.3936	.00000	.99999
54	43	2	103.6682	.00000	.99999
54	44	1	105.9655	.00000	.99999
54	45	0	108.2855	.00000	.99999
55	0	44	110.6282	.00000	.99999
55	1	43	112.9936	.00000	.99999
55	2	42	115.3818	.00000	.99999
55	3	41	117.7921	.00000	.99999
55	4	40	120.2245	.00000	.99999
55	5	39	122.6882	.00000	.99999
55	6	38	125.1736	.00000	.99999
55	7	37	127.6800	.00000	.99999
55	8	36	130.2082	.00000	.99999
55	9	35	132.7582	.00000	.99999
55	10	34	135.3291	.00000	.99999
55	11	33	137.9200	.00000	.99999
55	12	32	140.5318	.00000	.99999
55	13	31	143.1645	.00000	.99999
55	14	30	145.8182	.00000	.99999
55	15	29	148.4921	.00000	.99999
55	16	28	151.1864	.00000	.99999
55	17	27	153.9018	.00000	.99999
55	18	26	156.6382	.00000	.99999
55	19	25	159.3955	.00000	.99999
55	20	24	162.1736	.00000	.99999
55	21	23	164.9721	.00000	.99999
55	22	22	167.7918	.00000	.99999
55	23	21	170.6321	.00000	.99999
55	24	20	173.4936	.00000	.99999
55	25	19	176.3755	.00000	.99999
55	26	18	179.2782	.00000	.99999
55	27	17	182.2018	.00000	.99999
55	28	16	185.1464	.00000	.99999
55	29	15	188.1118	.00000	.99999
55	30	14	191.0982	.00000	.99999
55	31	13	194.1055	.00000	.99999
55	32	12	197.1336	.00000	.99999
55	33	11	200.1821	.00000	.99999
55	34	10	203.2518	.00000	.99999
55	35	9	206.3421	.00000	.99999
55	36	8	209.4536	.00000	.99999
55	37	7	212.5855	.00000	.99999
55	38	6	215.7382	.00000	.99999
55	39	5	218.9118	.00000	.99999
55	40	4	222.1064	.00000	.99999
55	41	3	225.3218	.00000	.99999
55	42	2	228.5582	.00000	.99999
55	43	1	231.8155	.00000	.99999
55	44	0	235.0936	.00000	.99999
56	0	43	238.3921	.00000	.99999
56	1	42	241.7118	.00000	.99999
56	2	41	245.0521	.00000	.99999
56	3	40	248.4136	.00000	.99999
56	4	39	251.7955	.00000	.99999
56	5	38	255.1982	.00000	.99999
56	6	37	258.6218	.00000	.99999
56	7	36	262.0664	.00000	.99999
56	8	35	265.5318	.00000	.99999
56	9	34	269.0182	.00000	.99999
56	10	33	272.5255	.00000	.99999
56	11	32	276.0536	.00000	.99999
56	12	31	279.5921	.00000	.99999
56	13	30	283.1518	.00000	.99999
56	14	29	286.7321	.00000	.99999
56	15	28	290.3336	.00000	.99999
56	16	27	293.9555	.00000	.99999
56	17	26	297.5982	.00000	.99999
56	18	25	301.2618	.00000	.99999
56	19	24	304.9455	.00000	.99999
56	20	23	308.6491	.00000	.99999
56	21	22	312.3721	.00000	.99999
56	22	21	316.1155	.00000	.99999
56	23	20	319.8882	.00000	.99999
56	24	19	323.6800	.00000	.99999
56	25	18	327.4918	.00000	.99999
56	26	17	331.3236	.00000	.99999
56	27	16	335.1755	.00000	.99999
56	28	15	339.0482	.00000	.99999
56	29	14	342.9418	.00000	.99999
56	30	13	346.8555	.00000	.99999
56	31	12	350.7891	.00000	.99999
56	32	11	354.7421	.00000	.99999
56	33	10	358.7145	.00000	.99999
56	34	9	362.7064	.00000	.99999
56	35	8	366.7178	.00000	.99999
56	36	7	370.7482	.00000	.99999
56	37	6	374.7971	.00000	.99999
56	38	5	378.8645	.00000	.99999
56	39	4	382.9500	.00000	.99999
56	40	3	387.0536	.00000	.99999
56	41	2	391.1755	.00000	.99999
56	42	1	395.3155	.00000	.99999
57	0	42	399.4736	.00000	.99999
57	1	41	403.6491	.00000	.99999
57	2	40	407.8421	.00000	.99999
57	3	39	412.0521	.00000	.99999
57	4	38	416.2782	.00000	.99999
57	5	37	420.5191	.00000	.99999
57	6	36	424.7845	.00000	.99999
57	7	35	429.0645	.00000	.99999
57	8	34	433.3591	.00000	.99999
57	9	33	437.6682	.00000	.99999
57	10	32	441.9918	.00000	.99999
57	11	31	446.3291	.00000	.99999
57	12	30	450.6891	.00000	.99999
57	13	29	455.0618	.00000	.99999
57	14	28	459.4464	.00000	.99999
57	15	27	463.8421	.00000	.99999
57	16	26	468.2582	.00000	.99999
57	17	25	472.6845	.00000	.99999
57	18	24	477.1218	.00000	.99999
57	19	23	481.5700	.00000	.99999
57	20	22	486.0282	.00000	.99999
57	21	21	490.4964	.00000	.99999
57	22	20	494.9745	.00000	.99999
57	23	19	499.4621	.00000	.99999
57	24	18	503.9591	.00000	.99999
57	25	17	508.4655	.00000	.99999
57	26	16	512.9818	.00000	.99999
57	27	15	517.5082	.00000	.99999
57	28	14	522.0445	.00000	.99999
57	29	13	526.5900	.00000	.99999
57	30	12	531.1455	.00000	.99999
57	31	11	535.7100	.00000	.99999
57	32	10	540.2836	.00000	.99999
57	33	9	544.8664	.00000	.99999
57	34	8	549.4582	.00000	.99999
57	35	7	554.0591	.00000	.99999
57	36	6	558.6691	.00000	.99999
57	37	5	563.2882	.00000	.99999
57	38	4	567.9155	.00000	.99999
57	39	3	572.5518	.00000	.99999
57	40	2	577.1971	.00000	.99999
57	41	1	581.8518	.00000	.99999
58	0	41	586.5155	.00000	.99999
58	1	40	591.1882	.00000	.99999
58	2	39	595.8691	.00000	.99999
58	3	38	600.5582	.00000	.99999
58	4	37	605.2555	.00000	.99999
58	5	36	609.9600	.00000	.99999
58	6	35	614.6718	.00000	.99999
58	7	34	619.3900	.00000	.99999
58	8	33	624.1155	.00000	.99999
58	9	32	628.8482	.00000	.99999
58	10	31	633.5882	.00000	.99999
58	11	30	638.3355	.00000	.99999
58	12	29	643.0891	.00000	.99999
58	13	28	647.8491	.00000	.99999
58	14	27	652.6155	.00000	.99999
58	15	26	657.3882	.00000	.99999
58	16	25	662.1671	.00000	.99999
58	17	24	666.9518	.00000	.99999
58	18	23	671.7421	.00000	.99999
58	19	22	676.5382	.00000	.99999
58	20	21	681.3391	.00000	.99999
58	21	20	686.1455	.00000	.99999
58	22	19	690.9571	.00000	.99999
58	23	18	695.7736	.00000	.99999
58	24	17	700.5955	.00000	.99999
58	25	16	705.4218	.00000	.99999
58	26	15	710.2521	.00000	.99999
58	27	14	715.0871	.00000	.99999
58	28	13	719.9264	.00000	.99999
58	29	12	724.7700	.00000	.99999
58	30	11	729.6182	.00000	.99999
58	31				

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TABLE EXP

CHI SQUARE = P(1/3), P(1/4/9), P(2/2/9) N=99

U	V	W	X2	P(A) CUM(EXP)	U	V	W	X2	P(A) CUM(EXP)		
15	53	33	17.8939	.00000	.98324	15	16	68	123.8182	.00000	.98337
15	53	32	17.3258	.00001	.98320	15	17	67	118.4318	.00000	.98337
15	54	31	16.8939	.00001	.98316	15	18	66	113.1818	.00000	.98337
15	54	30	16.4585	.00000	.98313	15	19	65	108.0682	.00000	.98337
15	56	29	16.0294	.00000	.98311	15	20	64	103.0909	.00000	.98337
15	57	28	15.6167	.00000	.98310	15	21	63	98.2500	.00000	.98337
15	58	27	15.2105	.00000	.98312	15	22	62	93.5455	.00000	.98337
15	59	26	14.8183	.00000	.98315	15	23	61	88.9773	.00000	.98337
15	60	25	14.4394	.00000	.98319	15	24	60	84.5455	.00000	.98337
15	61	24	14.0739	.00000	.98323	15	25	59	80.2500	.00000	.98337
15	62	23	13.7218	.00000	.98327	15	26	58	76.0909	.00000	.98337
15	63	22	13.3833	.00000	.98330	15	27	57	72.0682	.00000	.98337
15	64	21	13.0585	.00000	.98333	15	28	56	68.1818	.00000	.98337
15	65	20	12.7474	.00000	.98334	15	29	55	64.5318	.00000	.98337
15	66	19	12.4488	.00000	.98336	15	30	54	61.0227	.00000	.98337
15	67	18	12.1617	.00000	.98336	15	31	53	57.6499	.00000	.98337
15	68	17	11.8861	.00000	.98337	15	32	52	54.4090	.00000	.98337
15	69	16	11.6218	.00000	.98337	15	33	51	51.2955	.00000	.98337
15	70	15	11.3689	.00000	.98337	15	34	50	48.3090	.00000	.98337
15	71	14	11.1274	.00000	.98337	15	35	49	45.4545	.00000	.98337
15	72	13	10.8974	.00000	.98337	15	36	48	42.7380	.00000	.98337
15	73	12	10.6788	.00000	.98337	15	37	47	40.1538	.00000	.98337
15	74	11	10.4716	.00000	.98337	15	38	46	37.7018	.00000	.98337
15	75	10	10.2758	.00000	.98337	15	39	45	35.3863	.00000	.98337
15	76	9	10.0914	.00000	.98337	15	40	44	33.1982	.00000	.98337
15	77	8	9.9184	.00000	.98337	15	41	43	31.1328	.00000	.98337
15	78	7	9.7558	.00000	.98337	15	42	42	29.1875	.00000	.98337
15	79	6	9.6026	.00000	.98337	15	43	41	27.3593	.00000	.98337
15	80	5	9.4588	.00000	.98337	15	44	40	25.6429	.00000	.98337
15	81	4	9.3244	.00000	.98337	15	45	39	24.0350	.00000	.98337
15	82	3	9.1984	.00000	.98337	15	46	38	22.5318	.00000	.98335
15	83	2	9.0808	.00000	.98337	15	47	37	21.1290	.00000	.98335
15	84	1	8.9716	.00000	.98337	15	48	36	19.8218	.00000	.98338
15	85	0	8.8708	.00000	.98337	15	49	35	18.6050	.00000	.98339
15	86	0	8.7784	.00000	.98337	15	50	34	17.4818	.00000	.98339
15	87	0	8.6944	.00000	.98337	15	51	33	16.4473	.00000	.98331
15	88	0	8.6188	.00000	.98337	15	52	32	15.5000	.00000	.98301
15	89	0	8.5516	.00000	.98337	15	53	31	14.6363	.00000	.98291
15	90	0	8.4928	.00000	.98337	15	54	30	13.8527	.00000	.98263
15	91	0	8.4424	.00000	.98337	15	55	29	13.1455	.00000	.98277
15	92	0	8.3994	.00000	.98337	15	56	28	12.5200	.00000	.98275
15	93	0	8.3638	.00000	.98337	15	57	27	11.9727	.00000	.98283
15	94	0	8.3346	.00000	.98337	15	58	26	11.5000	.00000	.98283
15	95	0	8.3118	.00000	.98337	15	59	25	11.0882	.00000	.98291
15	96	0	8.2954	.00000	.98337	15	60	24	10.7318	.00000	.98391
15	97	0	8.2854	.00000	.98337	15	61	23	10.4273	.00000	.98391
15	98	0	8.2818	.00000	.98337	15	62	22	10.1718	.00000	.98319
15	99	0	8.2846	.00000	.98337	15	63	21	9.9636	.00000	.98325
15	100	0	8.2928	.00000	.98337	15	64	20	9.8009	.00000	.98338
15	69	12	10.6788	.00000	.98337	15	65	19	9.6818	.00000	.98333

(1)

TABLE EXP

U	V	W	X2	P(A) CUM(EXP)	U	V	W	X2	P(A) CUM(EXP)		
15	66	18	21.5455	.00000	.98335	16	51	52	55.5876	.00000	.98337
15	67	17	22.9773	.00000	.98336	16	52	51	50.2576	.00000	.98337
15	68	16	24.5455	.00000	.98336	16	53	50	47.1439	.00000	.98337
15	69	15	26.2500	.00000	.98337	16	54	49	44.1667	.00000	.98337
15	70	14	28.0909	.00000	.98337	16	55	48	41.3258	.00000	.98337
15	71	13	30.0682	.00000	.98337	16	56	47	38.6212	.00000	.98337
15	72	12	32.1818	.00000	.98337	16	57	46	36.0530	.00000	.98337
15	73	11	34.4318	.00000	.98337	16	58	45	33.6212	.00000	.98337
15	74	10	36.8182	.00000	.98337	16	59	44	31.3258	.00000	.98337
15	75	9	39.3409	.00000	.98337	16	60	43	29.1667	.00000	.98337
15	76	8	42.0000	.00000	.98337	16	61	42	27.1439	.00000	.98337
15	77	7	44.7955	.00000	.98337	16	62	41	25.2576	.00000	.98337
15	78	6	47.7273	.00000	.98337	16	63	40	23.5076	.00000	.98337
15	79	5	50.7955	.00000	.98337	16	64	39	21.8939	.00000	.98335
15	80	4	54.0000	.00000	.98337	16	65	38	20.4167	.00000	.98335
15	81	3	57.3409	.00000	.98337	16	66	37	19.0758	.00000	.98330
15	82	2	60.8182	.00000	.98337	16	67	36	17.8712	.00000	.98324
15	83	1	64.4318	.00000	.98337	16	68	35	16.8030	.00000	.98315
15	84	0	68.1818	.00000	.98337	16	69	34	15.8712	.00000	.98302
15	85	0	72.0682	.00000	.98337	16	70	33	15.0758	.00000	.98285
15	86	0	76.0909	.00000	.98337	16	71	32	14.4167	.00000	.98267
15	87	0	80.2500	.00000	.98337	16	72	31	13.8939	.00000	.98243
15	88	0	84.5455	.00000	.98337	16	73	30	13.5076	.00000	.98223
15	89	0	88.9773	.00000	.98337	16	74	29	13.2576	.00001	.98200
15	90	0	93.5455	.00000	.98337	16	75	28	13.1439	.00001	.98200
15	91	0	98.2500	.00000	.98337	16	76	27	13.1667	.00001	.98202
15	92	0	103.0909	.00000	.98337	16	77	26	13.3258	.00001	.98212
15	93	0	108.0682	.00000	.98337	16	78	25	13.6212	.00000	.98229
15	94	0	113.1818	.00000	.98337	16	79	24	14.0530	.00000	.98250
15	95	0	118.4318	.00000	.98337	16	80	23	14.5212	.00000	.98271
15	96	0	123.8182	.00000	.98337	16	81	22	15.0350	.00000	.98293
15	97	0	129.3409	.00000	.98337	16	82	21	15.5909	.00000	.98307
15	98	0	135.0000	.00000	.98337	16	83	20	16.1875	.00000	.98318
15	99	0	140.7955	.00000	.98337	16	84	19	16.8167	.00000	.98331
15	100	0	146.7273	.00000	.98337	16	85	18	17.4818	.00000	.98351
15	101	0	152.7955	.00000	.98337	16	86	17	18.1875	.00000	.98371
15	102	0	158.9773	.00000	.98337	16	87	16	18.9393	.00000	.98394
15	103	0	165.2727	.00000	.98337	16	88	15	19.7318	.00000	.98434
15	104	0	171.6818	.00000	.98337	16	89	14	20.5758	.00000	.98486
15	105	0	178.2000	.00000	.98337	16	90	13	21.4712	.00000	.98553
15	106	0	184.8273	.00000	.98337	16	91	12	22.4167	.00000	.98637
15	107	0	191.5636	.00000	.98337	16	92	11	23.4167	.00000	.98739
15	108	0	198.4090	.00000	.98337	16	93	10	24.4712	.00000	.98859
15	109	0	205.3636	.00000	.98337	16	94	9	25.5818	.00000	.98997
15	110	0	212.4273	.00000	.98337	16	95	8	26.7500	.00000	.99153
15	111	0	219.6000	.00000	.98337	16	96	7	27.9773	.00000	.99327
15	112	0	226.8818	.00000	.98337	16	97	6	29.2636	.00000	.99519
15	113	0	234.2727	.00000	.98337	16	98	5	30.6167	.00000	.99730
15	114	0	241.7727	.00000	.98337	16	99	4	32.0363	.00000	.99957
15	115	0	249.3818	.00000	.98337	16	100	3	33.5212	.00000	.99999

(2)

TABLE EXP

CHI SQUARE = P(1/3), P(1/4/9), P(2/2/9) N=99

U	V	W	X2	P(A)	CUM(EXP)	U	V	W	X2	P(A)	CUM(EXP)
16	81	2	58.2530	.00000	.98337	17	47	35	15.6439	.00000	.98298
16	82	1	61.6212	.00000	.98337	17	48	34	14.6667	.00000	.98273
16	83	0	65.3258	.00000	.98337	17	49	33	13.8250	.00001	.98246
16	84	0	69.3539	.00000	.98337	17	50	32	13.1212	.00001	.98218
16	85	0	73.6076	.00000	.98337	17	51	31	12.5530	.00001	.98189
16	86	0	78.0876	.00000	.98337	17	52	30	12.1212	.00001	.98160
16	87	0	82.8313	.00000	.98337	17	53	29	11.8250	.00001	.98132
16	88	0	87.8667	.00000	.98337	17	54	28	11.6667	.00001	.98105
16	89	0	93.2058	.00000	.98337	17	55	27	11.6439	.00001	.98078
16	90	0	98.8422	.00000	.98337	17	56	26	11.7576	.00001	.98053
16	91	0	104.7712	.00000	.98337	17	57	25	12.0076	.00001	.98028
16	92	0	111.0930	.00000	.98337	17	58	24	12.3939	.00001	.98003
16	93	0	117.8088	.00000	.98337	17	59	23	12.9167	.00001	.98018
16	94	0	125.0050	.00000	.98337	17	60	22	13.5750	.00001	.98027
16	95	0	132.6867	.00000	.98337	17	61	21	14.3712	.00001	.98031
16	96	0	140.9439	.00000	.98337	17	62	20	15.3030	.00001	.98029
16	97	0	149.7756	.00000	.98337	17	63	19	16.3712	.00001	.98010
16	98	0	159.1876	.00000	.98337	17	64	18	17.5750	.00001	.98022
16	99	0	169.1967	.00000	.98337	17	65	17	18.9167	.00001	.98029
16	100	0	179.8058	.00000	.98337	17	66	16	20.3939	.00001	.98033
17	01	0	191.0312	.00000	.98337	17	67	15	22.0076	.00001	.98035
17	02	0	202.8530	.00000	.98337	17	68	14	23.7576	.00001	.98036
17	03	0	215.2712	.00000	.98337	17	69	13	25.6439	.00001	.98037
17	04	0	228.3876	.00000	.98337	17	70	12	27.6667	.00001	.98037
17	05	0	241.7050	.00000	.98337	17	71	11	29.9167	.00001	.98037
17	06	0	255.3258	.00000	.98337	17	72	10	32.1212	.00001	.98037
17	07	0	269.3539	.00000	.98337	17	73	9	34.5530	.00001	.98037
17	08	0	283.7876	.00000	.98337	17	74	8	37.1212	.00001	.98037
17	09	0	298.6167	.00000	.98337	17	75	7	39.8258	.00001	.98037
17	10	0	313.8422	.00000	.98337	17	76	6	42.6667	.00001	.98037
17	11	0	329.4630	.00000	.98337	17	77	5	45.6439	.00001	.98037
17	12	0	345.4876	.00000	.98337	17	78	4	48.7876	.00001	.98037
17	13	0	361.9167	.00000	.98337	17	79	3	52.0076	.00001	.98037
17	14	0	378.7500	.00000	.98337	17	80	2	55.3939	.00001	.98037
17	15	0	396.0876	.00000	.98337	17	81	1	58.9167	.00001	.98037
17	16	0	413.9439	.00000	.98337	17	82	0	62.5750	.00001	.98037
17	17	0	432.3258	.00000	.98337	18	01	20	80.0000	.00000	.98037
17	18	0	451.2312	.00000	.98337	18	02	19	70.1750	.00000	.98037
17	19	0	470.6530	.00000	.98337	18	03	18	61.5909	.00000	.98037
17	20	0	490.5876	.00000	.98337	18	04	17	54.5602	.00000	.98037
17	21	0	511.0312	.00000	.98337	18	05	16	48.6410	.00000	.98037
17	22	0	532.0876	.00000	.98337	18	06	15	43.8250	.00000	.98037
17	23	0	553.7500	.00000	.98337	18	07	14	39.3167	.00000	.98037
17	24	0	576.0167	.00000	.98337	18	08	13	35.0000	.00000	.98037
17	25	0	598.8876	.00000	.98337	18	09	12	30.9409	.00000	.98037
17	26	0	622.3630	.00000	.98337	18	10	11	27.1250	.00000	.98037
17	27	0	646.4422	.00000	.98337	18	11	10	23.5295	.00000	.98037
17	28	0	671.1250	.00000	.98337	18	12	9	20.1750	.00000	.98037
17	29	0	696.4167	.00000	.98337	18	13	8	17.0000	.00000	.98037
17	30	0	722.3167	.00000	.98337	18	14	7	14.0000	.00000	.98037
17	31	0	748.8250	.00000	.98337	18	15	6	11.1250	.00000	.98037
17	32	0	775.9439	.00000	.98337	18	16	5	8.3750	.00000	.98037
17	33	0	803.6630	.00000	.98337	18	17	4	5.7500	.00000	.98037
17	34	0	831.9876	.00000	.98337	18	18	3	3.2500	.00000	.98037
17	35	0	860.9167	.00000	.98337	18	19	2	.8750	.00000	.98037
17	36	0	890.4500	.00000	.98337	18	20	1	.0000	.00000	.98037
17	37	0	920.5876	.00000	.98337	18	21	0	.0000	.00000	.98037
17	38	0	951.3258	.00000	.98337	18	22	0	.0000	.00000	.98037
17	39	0	982.6630	.00000	.98337	18	23	0	.0000	.00000	.98037
17	40	0	1014.6000	.00000	.98337	18	24	0	.0000	.00000	.98037
17	41	0	1047.1376	.00000	.98337	18	25	0	.0000	.00000	.98037
17	42	0	1080.2750	.00000	.98337	18	26	0	.0000	.00000	.98037
17	43	0	1114.0125	.00000	.98337	18	27	0	.0000	.00000	.98037
17	44	0	1148.3500	.00000	.98337	18	28	0	.0000	.00000	.98037
17	45	0	1183.2875	.00000	.98337	18	29	0	.0000	.00000	.98037
17	46	0	1218.8250	.00000	.98337	18	30	0	.0000	.00000	.98037
17	47	0	1254.9625	.00000	.98337	18	31	0	.0000	.00000	.98037
17	48	0	1291.6999	.00000	.98337	18	32	0	.0000	.00000	.98037
17	49	0	1329.0375	.00000	.98337	18	33	0	.0000	.00000	.98037
17	50	0	1366.9750	.00000	.98337	18	34	0	.0000	.00000	.98037
17	51	0	1405.5125	.00000	.98337	18	35	0	.0000	.00000	.98037
17	52	0	1444.6500	.00000	.98337	18	36	0	.0000	.00000	.98037
17	53	0	1484.3875	.00000	.98337	18	37	0	.0000	.00000	.98037
17	54	0	1524.7250	.00000	.98337	18	38	0	.0000	.00000	.98037
17	55	0	1565.6625	.00000	.98337	18	39	0	.0000	.00000	.98037
17	56	0	1607.1999	.00000	.98337	18	40	0	.0000	.00000	.98037
17	57	0	1649.3375	.00000	.98337	18	41	0	.0000	.00000	.98037
17	58	0	1692.0750	.00000	.98337	18	42	0	.0000	.00000	.98037
17	59	0	1735.4125	.00000	.98337	18	43	0	.0000	.00000	.98037
17	60	0	1779.3500	.00000	.98337	18	44	0	.0000	.00000	.98037
17	61	0	1823.8875	.00000	.98337	18	45	0	.0000	.00000	.98037
17	62	0	1869.0250	.00000	.98337	18	46	0	.0000	.00000	.98037
17	63	0	1914.7625	.00000	.98337	18	47	0	.0000	.00000	.98037
17	64	0	1961.1000	.00000	.98337	18	48	0	.0000	.00000	.98037
17	65	0	2008.0375	.00000	.98337	18	49	0	.0000	.00000	.98037
17	66	0	2055.5750	.00000	.98337	18	50	0	.0000	.00000	.98037
17	67	0	2103.7125	.00000	.98337	18	51	0	.0000	.00000	.98037
17	68	0	2152.4500	.00000	.98337	18	52	0	.0000	.00000	.98037
17	69	0	2201.7875	.00000	.98337	18	53	0	.0000	.00000	.98037
17	70	0	2251.7250	.00000	.98337	18	54	0	.0000	.00000	.98037
17	71	0	2302.2625	.00000	.98337	18	55	0	.0000	.00000	.98037
17	72	0	2353.3999	.00000	.98337	18	56	0	.0000	.00000	.98037
17	73	0	2405.1375	.00000	.98337	18	57	0	.0000	.00000	.98037
17	74	0	2457.4750	.00000	.98337	18	58	0	.0000	.00000	.98037
17	75	0	2510.4125	.00000	.98337	18	59	0	.0000	.00000	.98037
17	76	0	2563.9500	.00000	.98337	18	60	0	.0000	.00000	.98037
17	77	0	2618.0875	.00000	.98337	18	61	0	.0000	.00000	.98037
17	78	0	2672.8250	.00000	.98337	18	62	0	.0000	.00000	.98037
17	79	0	2728.1625	.00000	.98337	18	63	0	.0000	.00000	.98037
17	80	0	2784.0999	.00000	.98337	18	64	0	.0000	.00000	.98037
17	81	0	2840.6375	.00000	.98337	18	65	0	.0000	.00000	.98037
17	82	0	2897.7750	.00000	.98337	18	66	0	.0000	.00000	.98037
17	83	0	2955.5125	.00000	.98337	18	67	0	.0000	.00000	.98037
17	84	0	3013.8500	.00000	.98337	18	68	0	.0000	.00000	.98037
17	85	0	3072.7875	.00000	.98337	18	69	0	.0000	.00000	.98037
17	86	0	3132.3250	.00000	.98337	18	70	0	.0000	.00000	.98037
17	87	0	3192.4625	.00000	.98337	18	71	0	.0000	.00000	.98037
17	88	0	3253.1999	.00000	.98337	18	72	0	.0000	.00000	.98037
17	89	0	3314.5375	.00000	.98337	18	73	0	.0000	.00000	.98037
17	90	0	3376.4750	.00000	.98337	18	74	0	.0000	.00000	.98037
17	91	0	3439.0125	.00000	.98337	18	75	0	.0000	.00000	.98037
17	92	0	3502.1500	.00000	.98337	18	76	0	.0000	.00000	.98037
17	93	0	3565.8875	.00000	.98337	18	77	0	.0000	.00000	.98037
17	94	0	3630.2250	.00000	.98337	18	78	0	.0000		



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TABLE EXP

CHE SQUARE - P(41/33), P(44/9), P(42/9) N=99

U	V	W	X2	P(41/33) CUM(EXP)	U	V	W	X2	P(41/33) CUM(EXP)
19 32 48	39.9394	.00000	.98337		20 1 78	189.6899	.00000	.98337	
19 33 47	37.9405	.00000	.98337		20 2 77	182.7121	.00000	.98337	
19 34 46	34.9393	.00000	.98337		20 3 76	175.8712	.00000	.98337	
19 35 45	31.9458	.00000	.98337		20 4 75	169.1667	.00000	.98337	
19 36 44	29.9393	.00000	.98337		20 5 74	162.5945	.00000	.98337	
19 37 43	27.9405	.00000	.98337		20 6 73	156.1667	.00000	.98337	
19 38 42	24.9394	.00000	.98337		20 7 72	149.8712	.00000	.98337	
19 39 41	22.9417	.00000	.98336		20 8 71	143.7121	.00000	.98337	
19 40 40	21.0303	.00000	.98334		20 9 70	137.6899	.00000	.98337	
19 41 39	19.2003	.00000	.98331		20 10 69	131.8030	.00000	.98337	
19 42 38	17.6667	.00000	.98323		20 11 68	126.0530	.00000	.98337	
19 43 37	16.1894	.00000	.98317		20 12 67	120.4399	.00000	.98337	
19 44 36	14.8695	.00001	.98279		20 13 66	114.9467	.00000	.98337	
19 45 35	13.6439	.00001	.98250		20 14 65	109.5612	.00000	.98337	
19 46 34	12.5758	.00002	.98205		20 15 64	104.3167	.00000	.98337	
19 47 33	11.6439	.00002	.98147		20 16 63	99.2045	.00000	.98337	
19 48 32	10.8445	.00003	.97996		20 17 62	94.2167	.00000	.98337	
19 49 31	10.1894	.00004	.97733		20 18 61	89.3421	.00000	.98337	
19 50 30	9.6667	.00005	.97562		20 19 60	84.5621	.00000	.98337	
19 51 29	9.2803	.00006	.97393		20 20 59	80.0399	.00000	.98337	
19 52 28	8.9303	.00007	.97267		20 21 58	76.0530	.00000	.98337	
19 53 27	8.6167	.00007	.97203		20 22 57	71.8030	.00000	.98337	
19 54 26	8.3394	.00007	.97216		20 23 56	67.6899	.00000	.98337	
19 55 25	8.0985	.00007	.97303		20 24 55	63.7121	.00000	.98337	
19 56 24	7.8939	.00006	.97446		20 25 54	59.8712	.00000	.98337	
19 57 23	7.7258	.00006	.97619		20 26 53	56.1667	.00000	.98337	
19 58 22	7.5959	.00006	.97796		20 27 52	52.5945	.00000	.98337	
19 59 21	7.5085	.00005	.97957		20 28 51	49.1667	.00000	.98337	
19 60 20	7.4594	.00004	.98067		20 29 50	45.8712	.00000	.98337	
19 61 19	7.4467	.00004	.98184		20 30 49	42.7121	.00000	.98337	
19 62 18	7.4693	.00003	.98299		20 31 48	39.6899	.00000	.98337	
19 63 17	7.5280	.00003	.98400		20 32 47	36.8030	.00000	.98337	
19 64 16	7.6267	.00003	.98483		20 33 46	34.0530	.00000	.98337	
19 65 15	7.7619	.00003	.98546		20 34 45	31.4399	.00000	.98337	
19 66 14	7.9285	.00003	.98582		20 35 44	28.9621	.00000	.98337	
19 67 13	8.1219	.00003	.98595		20 36 43	26.6212	.00000	.98337	
19 68 12	8.3394	.00002	.98586		20 37 42	24.4167	.00000	.98336	
19 69 11	8.5758	.00002	.98557		20 38 41	22.3485	.00000	.98336	
19 70 10	8.8394	.00002	.98507		20 39 40	20.4167	.00000	.98333	
19 71 9	9.1219	.00002	.98437		20 40 39	18.6212	.00000	.98326	
19 72 8	9.4258	.00002	.98346		20 41 38	16.9621	.00000	.98317	
19 73 7	9.7485	.00002	.98234		20 42 37	15.4399	.00000	.98299	
19 74 6	10.0894	.00002	.98103		20 43 36	14.0530	.00000	.98250	
19 75 5	10.4467	.00002	.97957		20 44 35	12.8030	.00000	.98175	
19 76 4	10.8185	.00002	.97796		20 45 34	11.6899	.00000	.98084	
19 77 3	11.2045	.00002	.97619		20 46 33	10.7121	.00000	.97976	
19 78 2	11.6039	.00002	.97426		20 47 32	9.8712	.00000	.97859	
19 79 1	12.0167	.00002	.97216		20 48 31	9.1667	.00000	.97733	
19 80 0	12.4439	.00002	.96996		20 49 30	8.5945	.00000	.97603	
20 0 79	12.8894	.00002	.96767		20 50 29	8.1667	.00001	.96667	

(5)

TABLE EXP

U	V	W	X2	P(41/33) CUM(EXP)	U	V	W	X2	P(41/33) CUM(EXP)
20 51 28	7.8712	.00013	.96425		21 21 57	72.0687	.00000	.98337	
20 52 27	7.7121	.00014	.96266		21 22 56	67.9091	.00000	.98337	
20 53 26	7.6894	.00014	.96242		21 23 55	63.8864	.00000	.98337	
20 54 25	7.6830	.00014	.96358		21 24 54	60.0000	.00000	.98337	
20 55 24	8.0530	.00013	.96592		21 25 53	56.2500	.00000	.98337	
20 56 23	8.4394	.00011	.96897		21 26 52	52.6364	.00000	.98337	
20 57 22	8.9621	.00009	.97229		21 27 51	49.1591	.00000	.98337	
20 58 21	9.6212	.00007	.97542		21 28 50	45.8162	.00000	.98337	
20 59 20	10.4167	.00005	.97882		21 29 49	42.6136	.00000	.98337	
20 60 19	11.3485	.00003	.98261		21 30 48	39.5455	.00000	.98337	
20 61 18	12.4167	.00002	.98680		21 31 47	36.6136	.00000	.98337	
20 62 17	13.6214	.00001	.99129		21 32 46	33.8162	.00000	.98337	
20 63 16	14.9621	.00001	.99602		21 33 45	31.1591	.00000	.98337	
20 64 15	16.4394	.00000	.99911		21 34 44	28.6364	.00000	.98337	
20 65 14	18.0530	.00000	.99925		21 35 43	26.2500	.00000	.98337	
20 66 13	19.8030	.00000	.99932		21 36 42	24.0000	.00000	.98336	
20 67 12	21.6894	.00000	.99935		21 37 41	21.8864	.00000	.98335	
20 68 11	23.7121	.00000	.99936		21 38 40	19.9091	.00000	.98332	
20 69 10	25.8712	.00000	.99937		21 39 39	18.0682	.00000	.98325	
20 70 9	28.1667	.00000	.99937		21 40 38	16.3636	.00001	.98310	
20 71 8	30.5985	.00000	.99937		21 41 37	14.7955	.00001	.98277	
20 72 7	33.1667	.00000	.99937		21 42 36	13.3636	.00002	.98214	
20 73 6	35.8712	.00000	.99937		21 43 35	12.0682	.00003	.98103	
20 74 5	38.7121	.00000	.99937		21 44 34	10.9091	.00004	.97919	
20 75 4	41.6894	.00000	.99937		21 45 33	9.8864	.00007	.97687	
20 76 3	44.8030	.00000	.99937		21 46 32	9.0000	.00017	.97259	
20 77 2	48.0530	.00000	.99937		21 47 31	8.2500	.00033	.96756	
20 78 1	51.4394	.00000	.99937		21 48 30	7.6364	.00017	.96145	
20 79 0	54.9621	.00000	.99937		21 49 29	7.1591	.00020	.95632	
21 0 78	58.6212	.00000	.99937		21 50 28	6.8162	.00024	.95102	
21 1 77	62.4167	.00000	.99937		21 51 27	6.5136	.00026	.94741	
21 2 76	66.3485	.00000	.99937		21 52 26	6.2455	.00027	.94414	
21 3 75	70.4167	.00000	.99937		21 53 25	6.0136	.00027	.94141	
21 4 74	74.6214	.00000	.99937		21 54 24	5.8162	.00025	.93912	
21 5 73	78.9621	.00000	.99937		21 55 23	5.6439	.00021	.93712	
21 6 72	83.4394	.00000	.99937		21 56 22	5.4967	.00018	.93545	
21 7 71	88.0530	.00000	.99937		21 57 21	5.3712	.00014	.93403	
21 8 70	92.8030	.00000	.99937		21 58 20	5.2667	.00010	.93280	
21 9 69	97.6894	.00000	.99937		21 59 19	5.1818	.00007	.93176	
21 10 68	102.7121	.00000	.99937		21 60 18	5.1136	.00004	.93091	
21 11 67	107.8712	.00000	.99937		21 61 17	5.0600	.00003	.93024	
21 12 66	113.1667	.00000	.99937		21 62 16	5.0185	.00002	.92974	
21 13 65	118.6894	.00000	.99937		21 63 15	5.0000	.00001	.92940	
21 14 64	124.4394	.00000	.99937		21 64 14	5.0000	.00000	.92920	
21 15 63	130.4167	.00000	.99937		21 65 13	5.0000	.00000	.92920	
21 16 62	136.6214	.00000	.99937		21 66 12	5.0000	.00000	.92920	
21 17 61	143.0530	.00000	.99937		21 67 11	5.0000	.00000	.92920	
21 18 60	149.7121	.00000	.99937		21 68 10	5.0000	.00000	.92920	
21 19 59	156.5985	.00000	.99937		21 69 9	5.0000	.00000	.92920	
21 20 58	163.7121	.00000	.99937		21 70 8	5.0000	.00000	.92920	

(6)

TABLE EXP

CHE SQUARE - P(41/33), P(44/9), P(42/9) N=99

U	V	W	X2	P(41/33) CUM(EXP)	U	V	W	X2	P(41/33) CUM(EXP)		
21	71	7	51.1591	.00000	.98337	22	42	35	11.4394	.00004	.98026
21	72	6	48.9162	.00000	.98337	22	43	34	10.2348	.00007	.97771
21	73	5	46.8136	.00000	.98337	22	44	33	9.1667	.00010	.97533
21	74	4	44.8458	.00000	.98337	22	45	32	8.2348	.00015	.97303
21	75	3	42.9136	.00000	.98337	22	46	31	7.4394	.00021	.97084
21	76	2	41.0162	.00000	.98337	22	47	30	6.7603	.00027	.96874
21	77	1	39.2591	.00000	.98337	22	48	29	6.2076	.00034	.96674
21	78	0	37.6364	.00000	.98337	22	49	28	5.7712	.00041	.96484
22	0	77	36.1667	.00000	.98337	22	50	27	5.4212	.00048	.96303
22	1	76	34.8439	.00000	.98337	22	51	26	5.1576	.00054	.96136
22	2	75	33.6439	.00000	.98337	22	52	25	4.9603	.00060	.95984
22	3	74	32.5758	.00000	.98337	22	53	24	4.8285	.00065	.95846
22	4	73	31.6439	.00000	.98337	22	54	23	4.7500	.00069	.95721
22	5	72	30.8445	.00000	.98337	22	55	22	4.7212	.00072	.95612
22	6	71	30.1587	.00000	.98337	22	56	21	4.6948	.00074	.95511
22	7	70	31.3450	.00000	.98337	22	57	20	4.6694	.00075	.95424
22	8	69	33.5303	.00000	.98337	22	58	19	4.6453	.00076	.95341
22	9	68	32.7689	.00000	.98337	22	59	18	4.6226	.00077	.95264
22	10	67	32.0546	.00000	.98337	22	60	17	4.6012	.00078	.95194
22	11	66	31.3817	.00000	.98337	22	61	16	4.5812	.00079	.95134
22	12	65	30.7516	.00000	.98337	22	62	15	4.5626	.00080	.95080
22	13	64	30.1639	.00000	.98337	22	63	14	4.5453	.00081	.95032
22	14	63	29.6183	.00000	.98337	22	64	13	4.5294	.00082	.95000
22	15	62	29.1156	.00000	.98337	22	65	12	4.5148	.00083	.94974
22	16	61	28.6471	.00000	.98337	22	66	11	4.5016	.00084	.94953
22	17	60	28.2127	.00000	.98337	22	67	10	4.4897	.00085	.94936
22	18	59	27.8127	.00000	.98337	22	68	9	4.4791	.00086	.94923
22	19	58	27.4463	.00000	.98337	22	69	8	4.4697	.00087	.94913
22	20	57	27.1129	.00000	.98337	22	70	7	4.4616	.00088	.94905
22	21	56	26.8134	.00000	.98337	22	71	6	4.4547	.00089	.94900
22	22	55	26.5467	.00000	.98337	22	72	5	4.4490	.00090	.94897
22	23	54	26.3134	.00000	.98337	22	73	4	4.4444	.00091	.94895
22	24	53	26.1139	.00000	.98337	22	74	3	4.4409	.00092	.94894
22	25	52	25.9483	.00000	.98337	22	75	2	4.4384	.00093	.94894
22	26	51	25.8167	.00000	.98337	22	76	1	4.4368	.00094	.94894
22	27	50	25.7182	.00000	.98337	22	77	0	4.4361	.00095	.94893
22	28	49	25.6523	.00000	.98337	23	0	76	179.5738	.00000	.98337
22	29	48	34.5076	.00000	.98337	23	1	75	172.7348	.00000	.98337
22	30	47	34.5253	.00000	.98337	23	2	74	166.0303	.00000	.98337
22	31	46	33.6849	.00000	.98337	23	3	73	159.4621	.00000	.98337
22	32	45	33.9808	.00000	.98337	23	4	72	153.0303	.00000	.98337
22	33	44	33.4167	.00000	.98337	23	5	71	146.7348	.00000	.98337
22	34	43	32.9496	.00000	.98337	23	6	70	140.5738	.00000	.98337
22	35	42	32.5699	.00000	.98337	23	7	69	134.5530	.00000	.98337
22	36	41	21.8563	.00000	.98337	23	8	68	128.6667	.00000	.98337
22	37	40	21.8737	.00000	.98337	23	9	67	122.9143	.00000	.98337
22	38	39	17.6212	.00000	.98337	23	10	66	117.3030	.00000	.98337
22	39	38	17.8732	.00000	.98337	23	11	65	111.8250	.00000	.98337
22	40	37	14.2576	.00000	.98337	23	12	64	106.4400	.00000	.98337
22	41	36	12.7803	.00000	.98337	23	13	63	101.2400	.00000	.98337



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TABLE EXP

CHE SQUARE - P011/33, P114/79, P212/79 N999

U	V	W	X2	PIA1 CUMEXPT
24 37 34	13.2345	0.0001	98288	
24 38 37	13.5100	0.0002	98222	
24 39 34	11.9518	0.0004	98086	
24 40 35	13.5000	0.0007	97824	
24 41 34	9.2345	0.0012	97357	
24 42 33	4.4345	0.0020	96585	
24 43 32	7.2227	0.0030	95488	
24 44 31	6.1364	0.0044	93777	
24 45 30	5.3864	0.0060	91690	
24 46 29	4.7727	0.0079	89384	
24 47 28	4.2455	0.0097	86876	
24 48 27	3.8545	0.0113	84752	
24 49 26	3.5700	0.0129	82444	
24 50 25	3.3618	0.0150	80256	
24 51 24	3.2100	0.0177	78280	
24 52 23	3.0945	0.0211	76472	
24 53 22	2.9955	0.0250	74824	
24 54 21	2.9127	0.0294	73328	
24 55 20	2.8445	0.0343	71976	
24 56 19	2.7895	0.0398	70760	
24 57 18	2.7455	0.0459	69672	
24 58 17	2.7115	0.0526	68704	
24 59 16	2.6865	0.0599	67848	
24 60 15	2.6695	0.0678	67096	
24 61 14	2.6595	0.0763	66448	
24 62 13	2.6555	0.0854	65896	
24 63 12	2.6575	0.0951	65440	
24 64 11	2.6645	0.0106	65088	
24 65 10	2.6765	0.0124	64840	
24 66 9	2.6935	0.0146	64696	
24 67 8	2.7155	0.0172	64656	
24 68 7	2.7425	0.0202	64720	
24 69 6	2.7745	0.0236	64888	
24 70 5	2.8115	0.0274	65160	
24 71 4	2.8535	0.0316	65536	
24 72 3	2.9005	0.0362	66016	
24 73 2	2.9525	0.0412	66600	
24 74 1	3.0095	0.0466	67288	
24 75 0	3.0715	0.0524	68080	
24 76 0	3.1385	0.0586	68976	
24 77 0	3.2105	0.0652	69984	
24 78 0	3.2875	0.0722	71104	
24 79 0	3.3695	0.0796	72344	
24 80 0	3.4565	0.0874	73704	
24 81 0	3.5485	0.0956	75184	
24 82 0	3.6455	0.1042	76784	
24 83 0	3.7475	0.1132	78504	
24 84 0	3.8545	0.1226	80344	
24 85 0	3.9665	0.1324	82304	
24 86 0	4.0835	0.1426	84384	
24 87 0	4.2055	0.1532	86584	
24 88 0	4.3325	0.1642	88904	
24 89 0	4.4645	0.1756	91344	
24 90 0	4.6015	0.1874	93904	
24 91 0	4.7435	0.1996	96584	
24 92 0	4.8905	0.2122	99384	
24 93 0	5.0425	0.2252	102304	
24 94 0	5.1995	0.2386	105344	
24 95 0	5.3615	0.2524	108504	
24 96 0	5.5285	0.2666	111784	
24 97 0	5.6995	0.2812	115184	
24 98 0	5.8745	0.2962	118704	
24 99 0	6.0535	0.3116	122344	
24 100 0	6.2365	0.3274	126104	

(9)

TABLE EXP

U	V	W	X2	PIA1 CUMEXPT
25 61 15	12.1894	0.0002	98117	
25 62 12	13.8485	0.0001	98241	
25 63 11	15.6439	0.0000	98298	
25 64 10	17.5758	0.0000	98322	
25 65 9	19.6439	0.0000	98332	
25 66 8	21.8485	0.0000	98335	
25 67 7	24.1894	0.0000	98336	
25 68 6	26.6667	0.0000	98337	
25 69 5	29.2803	0.0000	98337	
25 70 4	32.0303	0.0000	98337	
25 71 3	34.9167	0.0000	98337	
25 72 2	37.9399	0.0000	98337	
25 73 1	41.0985	0.0000	98337	
25 74 0	44.3939	0.0000	98337	
26 0 73	163.7121	0.0000	98337	
26 1 72	157.1439	0.0000	98337	
26 2 71	150.7121	0.0000	98337	
26 3 70	144.4167	0.0000	98337	
26 4 69	138.2576	0.0000	98337	
26 5 68	132.2348	0.0000	98337	
26 6 67	126.3485	0.0000	98337	
26 7 66	120.5985	0.0000	98337	
26 8 65	114.9848	0.0000	98337	
26 9 64	109.5076	0.0000	98337	
26 10 63	104.1667	0.0000	98337	
26 11 62	98.9621	0.0000	98337	
26 12 61	93.8939	0.0000	98337	
26 13 60	88.9621	0.0000	98337	
26 14 59	84.1667	0.0000	98337	
26 15 58	79.5076	0.0000	98337	
26 16 57	74.9848	0.0000	98337	
26 17 56	70.5985	0.0000	98337	
26 18 55	66.3485	0.0000	98337	
26 19 54	62.2348	0.0000	98337	
26 20 53	58.2576	0.0000	98337	
26 21 52	54.4167	0.0000	98337	
26 22 51	50.7121	0.0000	98337	
26 23 50	47.1439	0.0000	98337	
26 24 49	43.7121	0.0000	98337	
26 25 48	40.4167	0.0000	98337	
26 26 47	37.2576	0.0000	98337	
26 27 46	34.2348	0.0000	98337	
26 28 45	31.3485	0.0000	98337	
26 29 44	28.5985	0.0000	98337	
26 30 43	25.9848	0.0000	98337	
26 31 42	23.5076	0.0000	98337	
26 32 41	21.1667	0.0000	98337	
26 33 40	18.9621	0.0000	98337	
26 34 39	16.8939	0.0001	98336	
26 35 38	14.9621	0.0001	98282	

(10)

TABLE EXP

CHE SQUARE - P011/33, P114/79, P212/79 N999

U	V	W	X2	PIA1 CUMEXPT
27 12 60	90.0000	0.0000	98337	
27 13 59	85.1591	0.0000	98337	
27 14 58	80.4545	0.0000	98337	
27 15 57	75.8884	0.0000	98337	
27 16 56	71.4545	0.0000	98337	
27 17 55	67.1591	0.0000	98337	
27 18 54	63.0000	0.0000	98337	
27 19 53	58.9773	0.0000	98337	
27 20 52	55.0898	0.0000	98337	
27 21 51	51.3489	0.0000	98337	
27 22 50	47.7273	0.0000	98337	
27 23 49	44.2500	0.0000	98337	
27 24 48	40.9091	0.0000	98337	
27 25 47	37.7045	0.0000	98337	
27 26 46	34.6364	0.0000	98337	
27 27 45	31.7045	0.0000	98337	
27 28 44	28.9091	0.0000	98337	
27 29 43	26.2500	0.0000	98337	
27 30 42	23.7273	0.0000	98336	
27 31 41	21.3454	0.0000	98335	
27 32 40	19.0909	0.0000	98330	
27 33 39	16.9773	0.0001	98331	
27 34 38	15.0000	0.0001	98283	
27 35 37	13.1591	0.0003	98201	
27 36 36	11.4545	0.0005	98018	
27 37 35	9.8884	0.0011	97640	
27 38 34	8.4545	0.0019	96908	
27 39 33	7.1591	0.0032	95802	
27 40 32	6.0000	0.0054	94355	
27 41 31	4.9773	0.0084	92681	
27 42 30	4.0909	0.0122	90746	
27 43 29	3.3489	0.0172	88581	
27 44 28	2.7273	0.0227	86217	
27 45 27	2.2000	0.0296	83661	
27 46 26	1.7691	0.0382	80920	
27 47 25	1.4245	0.0486	77904	
27 48 24	1.1634	0.0608	74624	
27 49 23	1.0000	0.0759	71088	
27 50 22	0.9091	0.0934	67304	
27 51 21	0.8250	0.1132	63280	
27 52 20	0.7473	0.1352	59024	
27 53 19	0.6745	0.1604	54544	
27 54 18	0.6065	0.1887	50000	
27 55 17	0.5435	0.2201	45392	
27 56 16	0.4855	0.2546	40720	
27 57 15	0.4325	0.2922	36000	
27 58 14	0.3845	0.3329	31248	
27 59 13	0.3405	0.3767	26464	
27 60 12	0.3005	0.4236	21648	
27 61 11	0.2645	0.4736	16800	

(11)

TABLE EXP

U	V	W	X2	PIA1 CUMEXPT	U
28 39 32	5.8712	0.0057	93126		29
28 40 31	4.8030	0.0092	89441		29
28 41 30	3.8712	0.0139	84175		29
28 42 29	3.0750	0.0198	77249		29
28 43 28	2.4167	0.0268	69014		29
28 44 27	1.8939	0.0350	60424		29
28 45 26	1.5076	0.0449	52243		29
28 46 25	1.2576	0.0564	44461		29
28 47 24	1.1439	0.0691	37081		29
28 48 23	1.1667	0.0842	30065		29
28 49 22	1.3250	0.0961	24444		29
28 50 21	1.6212	0.0906	19755		29
28 51 20	2.0530	0.0534	16355		29
28 52 19	2.6212	0.0257	13188		29
28 53 18	3.3250	0.0184	10759		29
28 54 17	4.1667	0.0123	86117		29
28 55 16	5.1439	0.0076	68442		29
28 56 15	6.2576	0.0043	54045		29
28 57 14	7.5076	0.0023	42642		29
28 58 13	8.8939	0.0011	34190		29
28 59 12	10.4167	0.0005	28600		29
28 60 11	12.0750	0.0002	24804		29
28 61 10	13.8712	0.0001	22242		29
28 62 9	15.8030	0.0000	20801		29
28 63 8	17.8712	0.0000	19424		29
28 64 7	20.0750	0.0000	18100		29
28 65 6	22.4167	0.0000	16836		29
28 66 5	24.8939	0.0000	15637		29
28 67 4	27.5076	0.0000	14495		29
28 68 3	30.2576	0.0000	13400		29
28 69 2	33.1439	0.0000	12352		29
28 70 1	36.1667	0.0000	11350		29
28 71 0	39.3250	0.0000	10392		29
28 72 0	42.6121	0.0000	94784		29
28 73 0	46.0399	0.0000	86032		29
28 74 0	49.6176	0.0000	77744		29
28 75 0	53.3454	0.0000	69920		29
28 76 0	57.2232	0.0000	62560		29
28 77 0	61.2510	0.0000	55664		29
28 78 0	65.4288	0.0000	49232		29
28 79 0	69.7566	0.0000	43264		29
28 80 0	74.2344	0.0000	37760		29
28 81 0	78.8622	0.0000	32720		29
28 82 0	83.6400	0.0000	28144		29
28 83 0	88.5678	0.0000	24032		29
28 84 0	93.6456	0.0000	20384		29
28 85 0	98.8734	0.0000	17200		29
28 86 0	104.2512	0.0000	14480		29
28 87 0	109.7790	0.0000	12224		29
28 88 0	115.4568	0.0000	10480		29
28 89 0	121.3846	0.0000	9248		29
28 90 0	127.4624	0.0000	8112		29
28 91 0	133.6902	0.0000	7072		29
28 92 0	140.0680	0.0000	6128		29
28 93 0	146.5958	0.0000	5280		29
28 94 0	153.2736	0.0000	4528		29
28 95 0	160.1014	0.0000	3872		29
28 96 0	167.0792	0.0000	3312		29
28 97 0	174.2070	0.0000	2848		29
28 98 0	181.4848	0.0000	2480		29
28 99 0	188.9126	0.0000	2208		29
28 100 0	196.4904	0.0000	1936		29

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TABLE EXP

ONE SQUARE - P(41/53), P(14/93), P(24/93) N=99

U	V	W	X2	P(A) CUM(EXP)	U	V	W	X2	P(A) CUM(EXP)
29 67	3	28.9167	.00000	.98337	30 46	23	.4091	.00717	.18257
29 68	2	31.7576	.00000	.98337	30 47	22	.0071	.00701	.20952
29 69	1	34.7348	.00000	.98337	30 48	21	.6818	.00643	.28516
29 70	0	37.8885	.00000	.98337	30 49	20	1.0227	.00551	.35924
30 0	67	144.6818	.00000	.98337	30 50	19	1.5090	.00441	.52025
30 1	66	138.4773	.00000	.98337	30 51	18	2.1136	.00329	.64208
30 2	65	132.4091	.00000	.98337	30 52	17	2.8636	.00227	.74873
30 3	64	126.4773	.00000	.98337	30 53	16	3.7598	.00146	.83284
30 4	63	120.6818	.00000	.98337	30 54	15	4.7727	.00086	.89304
30 5	62	115.0227	.00000	.98337	30 55	14	5.9318	.00047	.93243
30 6	61	109.5090	.00000	.98337	30 56	13	7.2273	.00024	.95694
30 7	60	104.1136	.00000	.98337	30 57	12	8.6591	.00011	.97048
30 8	59	98.8636	.00000	.98337	30 58	11	10.2273	.00004	.97749
30 9	58	93.7500	.00000	.98337	30 59	10	11.9318	.00002	.98086
30 10	57	88.7727	.00000	.98337	30 60	9	13.7727	.00001	.98237
30 11	56	83.9318	.00000	.98337	30 61	8	15.7500	.00000	.98300
30 12	55	79.2273	.00000	.98337	30 62	7	17.8636	.00000	.98324
30 13	54	74.6591	.00000	.98337	30 63	6	20.1136	.00000	.98333
30 14	53	70.2273	.00000	.98337	30 64	5	22.5000	.00000	.98336
30 15	52	65.9318	.00000	.98337	30 65	4	25.0227	.00000	.98337
30 16	51	61.7727	.00000	.98337	30 66	3	27.6818	.00000	.98337
30 17	50	57.7500	.00000	.98337	30 67	2	30.4773	.00000	.98337
30 18	49	53.8636	.00000	.98337	30 68	1	33.4091	.00000	.98337
30 19	48	50.1136	.00000	.98337	30 69	0	36.4773	.00000	.98337
30 20	47	46.5090	.00000	.98337	31 0	68	140.3030	.00000	.98337
30 21	46	43.0227	.00000	.98337	31 1	67	134.1894	.00000	.98337
30 22	45	39.6818	.00000	.98337	31 2	66	128.2121	.00000	.98337
30 23	44	36.4773	.00000	.98337	31 3	65	122.3712	.00000	.98337
30 24	43	33.4091	.00000	.98337	31 4	64	116.6667	.00000	.98337
30 25	42	30.4773	.00000	.98337	31 5	63	111.0985	.00000	.98337
30 26	41	27.6818	.00000	.98337	31 6	62	105.6667	.00000	.98337
30 27	40	25.0227	.00000	.98337	31 7	61	100.3712	.00000	.98337
30 28	39	22.5000	.00000	.98337	31 8	60	95.2121	.00000	.98337
30 29	38	20.1136	.00000	.98336	31 9	59	90.1894	.00000	.98337
30 30	37	17.8636	.00000	.98334	31 10	58	85.3030	.00000	.98337
30 31	36	15.7500	.00000	.98337	31 11	57	80.5530	.00000	.98337
30 32	35	13.7727	.00000	.98337	31 12	56	75.9394	.00000	.98337
30 33	34	11.9318	.00000	.98337	31 13	55	71.4621	.00000	.98337
30 34	33	10.2273	.00000	.97749	31 14	54	67.1212	.00000	.98337
30 35	32	8.6591	.00000	.97048	31 15	53	62.9167	.00000	.98337
30 36	31	7.2273	.00000	.95694	31 16	52	58.8485	.00000	.98337
30 37	30	5.9318	.00000	.94284	31 17	51	54.9167	.00000	.98337
30 38	29	4.7727	.00000	.92843	31 18	50	51.1212	.00000	.98337
30 39	28	3.7500	.00000	.91384	31 19	49	47.4621	.00000	.98337
30 40	27	2.8636	.00000	.89904	31 20	48	43.9394	.00000	.98337
30 41	26	2.1136	.00000	.88408	31 21	47	40.5530	.00000	.98337
30 42	25	1.5090	.00000	.86894	31 22	46	37.3030	.00000	.98337
30 43	24	1.0227	.00000	.85364	31 23	45	34.1894	.00000	.98337
30 44	23	.6818	.00000	.83818	31 24	44	31.2121	.00000	.98337
30 45	22	.4091	.00000	.82257	31 25	43	28.3712	.00000	.98337

(13)

TABLE EXP

U	V	W	X2	P(A) CUM(EXP)	U	V	W	X2	P(A) CUM(EXP)
31 26	42	25.6667	.00000	.98337	32 7	60	96.7803	.00000	.98337
31 27	41	23.0985	.00000	.98336	32 8	59	91.7121	.00000	.98337
31 28	40	20.6667	.00000	.98336	32 9	58	86.7803	.00000	.98337
31 29	39	18.3712	.00000	.98327	32 10	57	81.9848	.00000	.98337
31 30	38	16.2121	.00001	.98307	32 11	56	77.3254	.00000	.98337
31 31	37	14.1894	.00001	.98256	32 12	55	72.8030	.00000	.98337
31 32	36	12.3030	.00003	.98124	32 13	54	68.4267	.00000	.98337
31 33	35	10.5530	.00007	.97838	32 14	53	64.1867	.00000	.98337
31 34	34	8.9394	.00014	.97297	32 15	52	60.0930	.00000	.98337
31 35	33	7.4621	.00027	.96598	32 16	51	56.0754	.00000	.98337
31 36	32	6.1212	.00049	.95742	32 17	50	52.2348	.00000	.98337
31 37	31	4.9167	.00085	.94934	32 18	49	48.5303	.00000	.98337
31 38	30	3.8485	.00139	.94011	32 19	48	44.9621	.00000	.98337
31 39	29	2.9167	.00214	.93049	32 20	47	41.5303	.00000	.98337
31 40	28	2.1212	.00318	.92039	32 21	46	38.2348	.00000	.98337
31 41	27	1.4621	.00423	.91126	32 22	45	35.0758	.00000	.98337
31 42	26	.9394	.00544	.90304	32 23	44	32.0530	.00000	.98337
31 43	25	.5530	.00658	.89587	32 24	43	29.1667	.00000	.98337
31 44	24	.3230	.00748	.88962	32 25	42	26.4167	.00000	.98337
31 45	23	.1894	.00798	.88435	32 26	41	23.8030	.00000	.98336
31 46	22	.1212	.00798	.87917	32 27	40	21.3254	.00000	.98335
31 47	21	.0712	.00747	.87413	32 28	39	18.9848	.00000	.98330
31 48	20	.0467	.00655	.86927	32 29	38	16.7803	.00000	.98325
31 49	19	.0285	.00533	.86458	32 30	37	14.7121	.00001	.86274
31 50	18	.01667	.00405	.85997	32 31	36	12.7803	.00002	.85813
31 51	17	.00912	.00286	.85543	32 32	35	10.9848	.00005	.85355
31 52	16	.00512	.00187	.85097	32 33	34	9.3254	.00011	.84915
31 53	15	.00315	.00113	.84657	32 34	33	7.8030	.00022	.84484
31 54	14	.00203	.00063	.84216	32 35	32	6.4167	.00042	.84066
31 55	13	.00153	.00032	.83782	32 36	31	5.1667	.00074	.83658
31 56	12	.00112	.00015	.83354	32 37	30	4.0530	.00124	.83261
31 57	11	.00081	.00009	.82931	32 38	29	3.0758	.00195	.82874
31 58	10	.00061	.00002	.82511	32 39	28	2.2548	.00291	.82505
31 59	9	.00041	.00001	.82094	32 40	27	1.5503	.00407	.82152
31 60	8	.00028	.00000	.81681	32 41	26	.9621	.00556	.81777
31 61	7	.00016	.00000	.81271	32 42	25	.5530	.00748	.81424
31 62	6	.00009	.00000	.80864	32 43	24	.2848	.01071	.81081
31 63	5	.00005	.00000	.80460	32 44	23	.1530	.01641	.80749
31 64	4	.00003	.00000	.80059	32 45	22	.0830	.02460	.80427
31 65	3	.00002	.00000	.79660	32 46	21	.0467	.03623	.80115
31 66	2	.00001	.00000	.79263	32 47	20	.0267	.05159	.79815
31 67	1	.00001	.00000	.78868	32 48	19	.0153	.07061	.79524
31 68	0	.00000	.00000	.78474	32 49	18	.0086	.09349	.79241
32 0	67	136.0758	.00000	.98337	32 50	17	1.9848	.00342	.81924
32 1	66	130.0530	.00000	.98337	32 51	16	1.7803	.00228	.83477
32 2	65	124.1667	.00000	.98337	32 52	15	1.5712	.00140	.84993
32 3	64	118.4167	.00000	.98337	32 53	14	1.3643	.00079	.86493
32 4	63	112.8030	.00000	.98337	32 54	13	1.1584	.00041	.87974
32 5	62	107.3254	.00000	.98337	32 55	12	1.0000	.00019	.89422
32 6	61	101.9848	.00000	.98337	32 56	11	.84030	.00012	.90848

(14)

TABLE EXP

ONE SQUARE - P(41/53), P(14/93), P(24/93) N=99

U	V	W	X2	P(A) CUM(EXP)	U	V	W	X2	P(A) CUM(EXP)
32 57	10	10.9167	.00003	.97812	33 39	27	1.7045	.00370	.96555
32 58	9	12.1667	.00001	.98114	33 40	26	1.0909	.00499	.96150
32 59	8	14.2530	.00000	.98257	33 41	25	.6136	.00633	.95707
32 60	7	16.4758	.00000	.98305	33 42	24	.2727	.00754	.95280
32 61	6	18.8485	.00000	.98326	33 43	23	.0842	.00841	.94814
32 62	5	20.5303	.00000	.98334	33 44	22	.0000	.00887	.94300
32 63	4	22.4621	.00000	.98336	33 45	21	.0000	.00940	.93744
32 64	3	24.6530	.00000	.98337	33 46	20	.2727	.00985	.93154
32 65	2	27.0985	.00000	.98337	33 47	19	.7594	.01024	.92529
32 66	1	31.0758	.00000	.98337	33 48	18	1.0909	.01059	.91860
32 67	0	34.4509	.00000	.98337	33 49	17	1.7045	.01089	.91155
33 0	68	132.0530	.00000	.98337	33 50	16	2.4545	.01114	.90415
33 1	67	125.9682	.00000	.98337	33 51	15	3.3439	.01136	.89640
33 2	66	120.0227	.00000	.98337	33 52	14	4.3636	.01156	.88831
33 3	65	114.2136	.00000	.98337	33 53	13	5.5227	.01173	.88000
33 4	64	108.5409	.00000	.98337	33 54	12	6.8182	.01224	.87059
33 5	63	103.0749	.00000	.98337	33 55	11	8.2500	.00011	.86176
33 6	62	98.4545	.00000	.98337	33 56	13	.9182	.00004	.87616
33 7	59	93.5409	.00000	.98337	33 57	9	11.5227	.00081	.89219
33 8	58	88.3636	.00000	.98337	33 58	8	13.6636	.00000	.89214
33 9	57	83.9227	.00000	.98337	33 59	7	15.3409	.00000	.89214
33 10	56	79.1862	.00000	.98337	33 60	6	17.0909	.00000	.89214
33 11	55	74.4509	.00000	.98337	33 61	5	19.7405	.00000	.89332
33 12	54	69.8182	.00000	.98337	33 62	4	22.7909	.00000	.89335
33 13	53	65.0227	.00000	.98337	33 63	3	24.6136	.00000	.98337
33 14	52	61.3636	.00000	.98337	33 64	2	27.2727	.00000	.98337
33 15	51	57.5409	.00000	.98337	33 65	1	30.0000	.00000	.98337
33 16	50	53.5409	.00000	.98337	33 66	0	33.0000	.00000	.98337
33 17	49	49.4509	.00000	.98337	34 0	65	12.9875	.00000	.98337
33 18	48	45.4909	.00000	.98337	34 1	64	12.2436	.00000	.98337
33 19	47	41.6136	.00000	.98337	34 2	63	11.6333	.00000	.98337
33 20	46	37.8182	.00000	.98337	34 3	62	11.0621	.00000	.98337
33 21	45	34.0909	.00000	.98337	34 4	61	10.5303	.00000	.98337
33 22	44	31.0000	.00000	.98337	34 5	63	10.0234	.00000	.98337
33 23	43	28.0682	.00000	.98337	34 6	59	9.5758	.00000	.98337
33 24	42	27.2727	.00000	.98337	34 7	58	9.1350	.00000	.98337
33 25	41	24.6136	.00000	.98337	34 8	57	8.5616	.00000	.98337
33 26	40	22.0909	.00000	.98335	34 9	56	8.0467	.00000	.98337
33 27	39	19.7405	.00000	.98332	34 10	55	7.5833	.00000	.98337
33 28	38	17.4545	.00000	.98321	34 11	54	7.1325	.00000	.98337
33 29	37	15.3409	.00000	.98291	34 12	53	6.6946	.00000	.98337
33 30	36	13.3636	.00000	.98214	34 13	52	6.2780	.00000	.98337
33 31	35	11.5227	.00000	.98114	34 14	51	5.8821	.00000	.98337
33 32	34	9.7594	.00000	.97816	34 15	50	5.4703	.00000	.98337
33 33	33	8.2500	.00013	.97592	34 16	49	5.0494	.00000	.98337
33 34	32	6.8182	.00033	.97350	34 17	48	4.7325	.00000	.98337
33 35	31	5.5227	.00063	.97137	34 18	47	4.4050	.00000	.98337
33 36	30	4.3636	.00104	.97261	34 19	46	4.0637	.00000	.98337
33 37	29	3.3409	.00168	.97881	34 20	45	3.7167	.00000	.98337
33 38	28	2.4545	.00257	.96569	34 21	44	34.0530	.00000	.98337



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TABLE EXP

CHI SQUARE - P(01/3), P(04/9), P(2/2/9) N=99

U	V	W	X2	P(01/3) CURVEXP	U	V	W	X2	P(01/3) CURVEXP
55	56	8	12.5032	.00000	56	41	22	.4773	.00668
55	57	7	14.1894	.00000	56	42	21	.4091	.00721
55	58	6	16.2121	.00000	56	43	20	.4773	.00704
55	59	5	18.3712	.00000	56	44	19	.4818	.00640
55	60	4	20.6677	.00000	56	45	18	1.0227	.00501
55	61	3	23.0985	.00000	56	46	17	1.5000	.00425
55	62	2	25.6667	.00000	56	47	16	2.1136	.00304
55	63	1	28.3712	.00000	56	48	15	2.8636	.00220
55	64	0	31.2121	.00000	56	49	14	3.7500	.00125
55	65	123.6818	.00000	.00000	56	50	13	4.7727	.00070
55	66	113.2227	.00000	.00000	56	51	12	5.9318	.00036
55	67	104.5000	.00000	.00000	56	52	11	7.2273	.00016
55	68	104.1136	.00000	.00000	56	53	10	8.6591	.00007
55	69	98.8836	.00000	.00000	56	54	9	10.2273	.00003
55	70	93.7500	.00000	.00000	56	55	8	11.9318	.00001
55	71	88.7727	.00000	.00000	56	56	7	13.7727	.00000
55	72	83.9318	.00000	.00000	56	57	6	15.7500	.00000
55	73	79.2273	.00000	.00000	56	58	5	17.8636	.00000
55	74	74.5951	.00000	.00000	56	59	4	20.1136	.00000
55	75	70.0000	.00000	.00000	56	60	3	22.5000	.00000
55	76	65.5318	.00000	.00000	56	61	2	25.0227	.00000
55	77	61.1727	.00000	.00000	56	62	1	27.6818	.00000
55	78	57.7500	.00000	.00000	56	63	0	30.4773	.00000
55	79	53.8836	.00000	.00000	57	0	62	117.2121	.00000
55	80	50.1136	.00000	.00000	57	1	61	111.6439	.00000
55	81	46.5000	.00000	.00000	57	2	60	106.2121	.00000
55	82	43.0227	.00000	.00000	57	3	59	100.9167	.00000
55	83	39.5951	.00000	.00000	57	4	58	95.7576	.00000
55	84	36.2273	.00000	.00000	57	5	57	90.7368	.00000
55	85	32.9318	.00000	.00000	57	6	56	85.8885	.00000
55	86	29.7273	.00000	.00000	57	7	55	81.0965	.00000
55	87	26.5951	.00000	.00000	57	8	54	76.4868	.00000
55	88	23.5000	.00000	.00000	57	9	53	72.0000	.00000
55	89	20.5318	.00000	.00000	57	10	52	67.6818	.00000
55	90	17.6836	.00000	.00000	57	11	51	63.4621	.00000
55	91	14.9318	.00000	.00000	57	12	50	59.3939	.00000
55	92	12.2727	.00000	.00000	57	13	49	55.4621	.00000
55	93	9.7500	.00000	.00000	57	14	48	51.6667	.00000
55	94	7.3591	.00000	.00000	57	15	47	48.0076	.00000
55	95	5.0000	.00000	.00000	57	16	46	44.4848	.00000
55	96	2.7273	.00000	.00000	57	17	45	41.0965	.00000
55	97	0.5318	.00000	.00000	57	18	44	37.8485	.00000
55	98	0.1727	.00000	.00000	57	19	43	34.7368	.00000
55	99	0.0000	.00000	.00000	57	20	42	31.7576	.00000
55	100	0.0000	.00000	.00000	57	21	41	28.9167	.00000
55	101	0.0000	.00000	.00000	57	22	40	26.2121	.00000
55	102	0.0000	.00000	.00000	57	23	39	23.6439	.00000
55	103	0.0000	.00000	.00000	57	24	38	21.2121	.00000
55	104	0.0000	.00000	.00000	57	25	37	18.9167	.00000
55	105	0.0000	.00000	.00000	57	26	36	16.7576	.00000

(17)

TABLE EXP

U	V	W	X2	P(01/3) CURVEXP	U	V	W	X2	P(01/3) CURVEXP
57	27	35	16.7368	.00001	58	14	47	49.6212	.00000
57	28	34	12.6485	.00001	58	15	46	46.0537	.00000
57	29	33	11.0965	.00003	58	16	45	42.6212	.00000
57	30	32	9.4888	.00007	58	17	44	39.3258	.00000
57	31	31	8.0076	.00015	58	18	43	36.1667	.00000
57	32	30	6.6667	.00029	58	19	42	33.1439	.00000
57	33	29	5.4621	.00053	58	20	41	30.2576	.00000
57	34	28	4.3939	.00091	58	21	40	27.5076	.00000
57	35	27	3.4621	.00146	58	22	39	24.8939	.00000
57	36	26	2.6667	.00219	58	23	38	22.4167	.00000
57	37	25	2.0076	.00307	58	24	37	20.0798	.00000
57	38	24	1.4888	.00409	58	25	36	17.8712	.00000
57	39	23	1.0965	.00497	58	26	35	15.8030	.00000
57	40	22	.8485	.00572	58	27	34	13.8712	.00001
57	41	21	.7368	.00614	58	28	33	12.0758	.00002
57	42	20	.6576	.00614	58	29	32	10.4167	.00004
57	43	19	.6167	.00571	58	30	31	8.8939	.00009
57	44	18	1.2121	.00493	58	31	30	7.5076	.00019
57	45	17	1.6439	.00395	58	32	29	6.2576	.00035
57	46	16	2.2121	.00292	58	33	28	5.1439	.00061
57	47	15	2.9167	.00199	58	34	27	4.1667	.00101
57	48	14	3.7576	.00124	58	35	26	3.3258	.00158
57	49	13	4.7368	.00071	58	36	25	2.6212	.00224
57	50	12	5.8485	.00037	58	37	24	2.0530	.00303
57	51	11	7.0965	.00017	58	38	23	1.6212	.00385
57	52	10	8.4888	.00007	58	39	22	1.3258	.00452
57	53	9	10.0076	.00003	58	40	21	1.1667	.00497
57	54	8	11.6667	.00001	58	41	20	1.1439	.00509
57	55	7	13.4621	.00000	58	42	19	1.2576	.00495
57	56	6	15.3939	.00000	58	43	18	1.5076	.00428
57	57	5	17.4621	.00000	58	44	17	1.8939	.00350
57	58	4	19.6667	.00000	58	45	16	2.4167	.00265
57	59	3	22.0076	.00000	58	46	15	3.7576	.00184
57	60	2	24.4888	.00000	58	47	14	5.1439	.00118
57	61	1	27.0965	.00000	58	48	13	6.6667	.00069
57	62	0	29.8485	.00000	58	49	12	8.3712	.00036
58	0	61	115.8939	.00000	58	50	11	10.2576	.00017
58	1	60	108.4167	.00000	58	51	10	12.4167	.00008
58	2	59	103.0758	.00000	58	52	9	14.8939	.00003
58	3	58	97.8712	.00000	58	53	8	17.5076	.00001
58	4	57	92.8758	.00000	58	54	7	20.2576	.00000
58	5	56	87.8712	.00000	58	55	6	23.1439	.00000
58	6	55	83.0758	.00000	58	56	5	26.1667	.00000
58	7	54	78.4167	.00000	58	57	4	29.3258	.00000
58	8	53	73.8939	.00000	58	58	3	32.6212	.00000
58	9	52	69.5076	.00000	58	59	2	36.0530	.00000
58	10	51	65.2576	.00000	58	60	1	39.6212	.00000
58	11	50	61.1439	.00000	58	61	0	43.3258	.00000
58	12	49	57.1667	.00000	58	62	0	47.2576	.00000
58	13	48	53.3258	.00000	58	63	0	51.3258	.00000

(18)

TABLE EXP

CHI SQUARE - P(01/3), P(04/9), P(2/2/9) N=99

U	V	W	X2	P(01/3) CURVEXP	U	V	W	X2	P(01/3) CURVEXP
59	2	58	100.3939	.00000	59	52	8	11.4545	.00001
59	3	57	96.4773	.00000	59	53	7	13.1591	.00000
59	4	56	92.6667	.00000	59	54	6	15.0000	.00000
59	5	55	89.0591	.00000	59	55	5	16.9773	.00000
59	6	54	85.4545	.00000	59	56	4	19.0909	.00000
59	7	53	81.8864	.00000	59	57	3	21.3409	.00000
59	8	52	78.4545	.00000	59	58	2	23.7273	.00000
59	9	51	75.1591	.00000	59	59	1	26.2500	.00000
59	10	50	71.9318	.00000	59	60	0	28.9091	.00000
59	11	49	68.7500	.00000	59	61	0	31.7121	.00000
59	12	48	65.6000	.00000	59	62	0	34.5676	.00000
59	13	47	62.5000	.00000	59	63	0	37.4621	.00000
59	14	46	59.4545	.00000	59	64	0	40.4000	.00000
59	15	45	56.4545	.00000	59	65	0	43.4818	.00000
59	16	44	53.5000	.00000	59	66	0	46.6091	.00000
59	17	43	50.6000	.00000	59	67	0	49.7818	.00000
59	18	42	47.7500	.00000	59	68	0	53.0000	.00000
59	19	41	44.9318	.00000	59	69	0	56.2621	.00000
59	20	40	42.1591	.00000	59	70	0	59.5676	.00000
59	21	39	39.4273	.00000	59	71	0	62.9167	.00000
59	22	38	36.7273	.00000	59	72	0	66.3091	.00000
59	23	37	34.0667	.00000	59	73	0	69.7455	.00000
59	24	36	31.4545	.00000	59	74	0	73.2273	.00000
59	25	35	28.8864	.00000	59	75	0	76.7500	.00000
59	26	34	26.3636	.00000	59	76	0	80.3182	.00000
59	27	33	23.8864	.00000	59	77	0	83.9318	.00000
59	28	32	21.4545	.00000	59	78	0	87.5909	.00000
59	29	31	19.0667	.00000	59	79	0	91.2955	.00000
59	30	30	16.7273	.00000	59	80	0	95.0000	.00000
59	31	29	14.4545	.00000	59	81	0	98.7500	.00000
59	32	28	12.2500	.00000	59	82	0	102.5455	.00000
59	33	27	10.1111	.00000	59	83	0	106.3864	.00000
59	34	26	8.0000	.00000	59	84	0	110.2727	.00000
59	35	25	5.9091	.00000	59	85	0	114.2045	.00000
59	36	24	3.8864	.00000	59	86	0	118.1818	.00000
59	37	23	1.9318	.00000	59	87	0	122.2045	.00000
59	38	22	0.0000	.00000	59	88	0	126.2727	.00000
59	39	21	-1.9318	.00000	59	89	0	130.3864	.00000
59	40	20	-3.8864	.00000	59	90	0	134.5455	.00000
59	41	19	-5.9091	.00000	59	91	0	138.7500	.00000
59	42	18	-7.9318	.00000	59	92	0	143.0000	.00000
59	43	17	-9.9545	.00000	59	93	0	147.2955	.00000
59	44	16	-11.9773	.00000	59	94	0	151.6364	.00000
59	45	15	-13.9545	.00000	59	95	0	156.0227	.00000
59	46	14	-15.9318	.00000	59	96	0	160.4545	.00000
59	47	13	-17.9091	.00000	59	97	0	164.9318	.00000
59	48	12	-19.8864	.00000	59	98	0	169.4545	.00000
59	49	11	-21.8636	.00000	59	99	0	174.0182	.00000
59	50	10	-23.8409	.00000	59	100	0	178.6364	.00000
59	51	9	-25.8182	.00000	59	101	0	183.3091	.00000
59	52	8	-27.7955	.00000	59	102	0	188.0364	.00000
59	53	7	-29.7727	.00000	59	103	0	192.8182	.00000
59	54	6	-31.7500	.00000	59	104	0	197.6545	.00000
59	55	5	-33.7273	.00000	59	105	0	202.5455	.00000
59	56	4	-35.7045	.00000	59	106	0	207.4864	.00000
59	57	3	-37.6818	.00000	59	107	0	212.4773	.00000
59	58	2	-39.6591	.00000	59	108	0	217.5182	.00000
59	59	1	-41.6364	.00000	59	109	0	222.6091	.00000
59	60	0	-43.6136	.00000	59	110	0	227.7500	.00000
59	61	0	-45.5909	.00000	59	111	0	232.9364	.00000
59	62	0	-47.5682	.00000	59	112	0	238.1682	.00000
59	63	0	-49.5455	.00000	59	113	0	243.4455	.00000
59	64	0	-51.5227	.00000	59	114	0	248.7727	.00000
59	65	0	-53.5000	.00000	59	115	0	254.1545	.00000
59	66	0	-55.4773	.00000	59	116	0	259.5864	.00000
59	67	0	-57.4545	.00000	59	117	0	265.0682	.00000
59	68	0	-59.4318	.00000	59	118	0	270.6000	.00000
59	69	0	-61.4091	.00000	59	119	0	276.1818	.00000
59	70	0	-63.3864	.00000	59	120	0	281.8182	.00000
59	71	0	-65.3636	.00000	59	121	0	287.5000	.00000
59	72	0	-67.3409	.00000	59	122	0	293.2273	.00000
59	73	0	-69.3182	.00000	59	123	0	299.0000	.00000
59	74	0	-71.2955	.00000	59	124	0	304.8182	.00000
59	75	0	-73.2727	.00000	59	125	0	310.6818	.00000
59	76	0	-75.2500	.00000	59	126	0	316.5909	.00000
59	77	0	-77.2273	.00000	59	127	0	322.5455	.00000
59	78	0	-79.2045	.00000	59	128	0	328.5545	.00000
59	79	0	-81.1818	.00000	59	129	0	334.6182	.00000
59	80	0	-83.1591	.00000	59	130	0	340.7364	.00000
59	81	0	-85.1364	.00000	59	131	0	346.9091	.00000
59	82	0	-87.1136	.00000	59	132	0	353.1364	.00000
59	83	0	-89.0909	.00000	59	133	0	359.4182	.00000
59	84	0	-91.0682	.00000	59	134	0	365.7500	.00000
59	85	0	-93.0455	.00000	59	135	0	372.1364	.00000
59	86	0	-95.0227	.00000	59	136	0	378.5727	.00000
59	87	0	-97.0000	.00000	59	137	0	385.0636	.00000
59	88	0	-98.9773	.00000	59	138	0	391.6091	.00000
59	89	0	-100.9545	.00000	59	139	0	398.2091	.00000
59	90	0	-102.9318	.00000	59	140	0	404.8636	.00000
59	91	0	-104.9091	.00000	59	141	0	411.5727	.00000
59	92	0	-106.8864	.00000	59	142	0	418.3364	.00000
59	93	0	-108.8636	.00000	59	143	0	425.1545	.00000
59	94	0	-110.8409	.00000	59	144	0	432.0227	.00000
59	95	0	-112.8182	.00000	59	145	0	438.9455	.00000
59	96	0	-114.7955	.00000	59	146	0	445.9182	.00000
59	97	0	-116.7727	.00000	59	147	0	452.9455	.00000
59	98	0	-118.7500	.00000	59	148	0	460.0227	.00000
59	99	0	-120.7273	.00000	59	149	0	467.1545	.00000
59	100	0	-122.7045	.00000	59	150	0	474.3364	.00000



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TABLE EXP

CHI SQUARE - P(1/3), P(4/9), P(2/9) N=99

U	V	W	X2	P(A) CUM(Exp)	U	V	W	X2	P(A) CUM(Exp)
42 22 35	21.1364	.00000	.98333		43 14 42	41.6667	.00000	.98337	
42 23 34	19.0227	.00000	.98330		43 15 41	36.5538	.00000	.98337	
42 24 33	17.0455	.00000	.98318		43 16 40	35.5750	.00000	.98337	
42 25 32	15.2045	.00000	.98288		43 17 39	32.7340	.00000	.98337	
42 26 31	13.5000	.00001	.98222		43 18 38	30.8303	.00000	.98337	
42 27 30	11.9310	.00002	.98066		43 19 37	27.4621	.00000	.98337	
42 28 29	10.5000	.00004	.97824		43 20 36	25.0383	.00000	.98337	
42 29 28	9.2045	.00007	.97357		43 21 35	22.7348	.00000	.98336	
42 30 27	8.0455	.00013	.96585		43 22 34	20.5758	.00000	.98334	
42 31 26	7.0227	.00023	.95488		43 23 33	18.5538	.00000	.98328	
42 32 25	6.1364	.00037	.93777		43 24 32	16.6667	.00000	.98315	
42 33 24	5.3869	.00057	.91698		43 25 31	14.9167	.00000	.98288	
42 34 23	4.7727	.00088	.89384		43 26 30	13.3038	.00001	.98211	
42 35 22	4.2955	.00125	.86876		43 27 29	11.8258	.00002	.98072	
42 36 21	3.9545	.00164	.841752		43 28 28	10.4844	.00004	.97820	
42 37 20	3.7500	.00214	.81284		43 29 27	9.2803	.00007	.97393	
42 38 19	3.6816	.00253	.82756		43 30 26	8.2121	.00012	.96725	
42 39 18	3.7500	.00294	.83284		43 31 25	7.2853	.00021	.95764	
42 40 17	3.9545	.00344	.84752		43 32 24	6.4848	.00033	.94588	
42 41 16	4.2955	.00412	.86876		43 33 23	5.8258	.00047	.93185	
42 42 15	4.7727	.00505	.89384		43 34 22	5.3038	.00064	.91614	
42 43 14	5.3869	.00625	.91698		43 35 21	4.9167	.00081	.89934	
42 44 13	6.1364	.00788	.93777		43 36 20	4.6667	.00104	.88180	
42 45 12	7.0227	.00998	.95488		43 37 19	4.5538	.00132	.86284	
42 46 11	8.0455	.00111	.96855		43 38 18	4.5758	.00162	.84349	
42 47 10	9.2045	.00145	.97357		43 39 17	4.7348	.00194	.82430	
42 48 9	10.5000	.00182	.97824		43 40 16	5.0383	.00230	.80482	
42 49 8	11.9310	.00221	.98066		43 41 15	5.4621	.00262	.78519	
42 50 7	13.5000	.00262	.98222		43 42 14	6.0303	.00294	.76529	
42 51 6	15.2045	.00308	.98288		43 43 13	6.7348	.00329	.74593	
42 52 5	17.0455	.00358	.98318		43 44 12	7.5758	.00367	.72619	
42 53 4	19.0227	.00412	.98330		43 45 11	8.5538	.00409	.70697	
42 54 3	21.1364	.00470	.98334		43 46 10	9.6667	.00454	.68750	
42 55 2	23.3869	.00532	.98336		43 47 9	10.9167	.00502	.66791	
42 56 1	25.7727	.00600	.98337		43 48 8	12.3038	.00551	.64829	
42 57 0	28.2955	.00675	.98337		43 49 7	13.8258	.00602	.62840	
43 0 56	98.5758	.00000	.98337		43 50 6	15.4848	.00655	.60825	
43 1 55	96.5538	.00000	.98337		43 51 5	17.2803	.00710	.58780	
43 2 54	89.6667	.00000	.98337		43 52 4	19.2121	.00768	.56730	
43 3 53	84.4167	.00000	.98337		43 53 3	21.2803	.00828	.54685	
43 4 52	80.3838	.00000	.98337		43 54 2	23.4848	.00890	.52656	
43 5 51	75.8258	.00000	.98337		43 55 1	25.8258	.00954	.50643	
43 6 50	71.4848	.00000	.98337		43 56 0	28.3038	.01020	.48657	
43 7 49	67.2803	.00000	.98337		44 0 55	97.1667	.00000	.98337	
43 8 48	63.2121	.00000	.98337		44 1 54	92.2348	.00000	.98337	
43 9 47	59.2803	.00000	.98337		44 2 53	87.4394	.00000	.98337	
43 10 46	55.4848	.00000	.98337		44 3 52	82.7803	.00000	.98337	
43 11 45	51.8258	.00000	.98337		44 4 51	78.2576	.00000	.98337	
43 12 44	48.3838	.00000	.98337		44 5 50	73.8712	.00000	.98337	
43 13 43	45.9167	.00000	.98337		44 6 49	69.6212	.00000	.98337	

(21)

TABLE EXP

U	V	W	X2	P(A) CUM(Exp)	U	V	W	X2	P(A) CUM(Exp)
44 7 48	65.5076	.00000	.98337		45 1 53	98.0682	.00000	.98337	
44 8 47	61.5383	.00000	.98337		45 2 52	85.3636	.00000	.98337	
44 9 46	57.4894	.00000	.98337		45 3 51	80.7955	.00000	.98337	
44 10 45	53.4848	.00000	.98337		45 4 50	76.3636	.00000	.98337	
44 11 44	50.4167	.00000	.98337		45 5 49	72.0682	.00000	.98337	
44 12 43	46.9048	.00000	.98337		45 6 48	67.9891	.00000	.98337	
44 13 42	43.6894	.00000	.98337		45 7 47	63.8864	.00000	.98337	
44 14 41	40.5383	.00000	.98337		45 8 46	60.0000	.00000	.98337	
44 15 40	37.0076	.00000	.98337		45 9 45	56.2500	.00000	.98337	
44 16 39	34.0212	.00000	.98337		45 10 44	52.6364	.00000	.98337	
44 17 38	31.0712	.00000	.98337		45 11 43	49.1591	.00000	.98337	
44 18 37	28.0076	.00000	.98337		45 12 42	45.8182	.00000	.98337	
44 19 36	26.7003	.00000	.98337		45 13 41	42.6136	.00000	.98337	
44 20 35	24.4394	.00000	.98336		45 14 40	39.5485	.00000	.98337	
44 21 34	22.2348	.00000	.98336		45 15 39	36.6234	.00000	.98337	
44 22 33	20.1667	.00000	.98333		45 16 38	33.8182	.00000	.98337	
44 23 32	18.2348	.00000	.98326		45 17 37	31.1591	.00000	.98337	
44 24 31	16.4394	.00000	.98311		45 18 36	28.6364	.00000	.98337	
44 25 30	14.7803	.00000	.98277		45 19 35	26.2500	.00000	.98337	
44 26 29	13.2576	.00001	.98288		45 20 34	24.0000	.00000	.98336	
44 27 28	11.8712	.00002	.98078		45 21 33	21.8864	.00000	.98335	
44 28 27	10.6212	.00003	.97854		45 22 32	19.9891	.00000	.98332	
44 29 26	9.5076	.00004	.97496		45 23 31	18.3636	.00000	.98325	
44 30 25	8.5383	.00005	.96961		45 24 30	16.9091	.00000	.98318	
44 31 24	7.6894	.00006	.96242		45 25 29	15.7955	.00000	.98277	
44 32 23	6.9448	.00007	.95351		45 26 28	14.9636	.00001	.98214	
44 33 22	6.4167	.00007	.94366		45 27 27	14.3682	.00002	.98163	
44 34 21	5.9848	.00008	.93417		45 28 26	13.9091	.00003	.98119	
44 35 20	5.6494	.00009	.92634		45 29 25	13.4864	.00004	.98084	
44 36 19	5.3803	.00009	.92141		45 30 24	13.0909	.00004	.98050	
44 37 18	5.1676	.00009	.91809		45 31 23	12.7200	.00004	.98016	
44 38 17	5.0076	.00009	.91435		45 32 22	12.3727	.00004	.98002	
44 39 16	4.8712	.00009	.91126		45 33 21	12.0455	.00004	.98002	
44 40 15	4.7576	.00009	.90845		45 34 20	11.7364	.00004	.98002	
44 41 14	4.6803	.00009	.90589		45 35 19	11.4439	.00004	.98002	
44 42 13	4.6394	.00009	.90361		45 36 18	11.1636	.00004	.98002	
44 43 12	4.6182	.00009	.90154		45 37 17	10.8945	.00004	.98002	
44 44 11	4.6067	.00009	.90000		45 38 16	10.6364	.00004	.98002	
44 45 10	4.6048	.00009	.90000		45 39 15	10.3864	.00004	.98002	
44 46 9	4.6167	.00009	.90016		45 40 14	10.1439	.00004	.98002	
44 47 8	4.6383	.00009	.90173		45 41 13	9.9091	.00004	.98002	
44 48 7	4.6576	.00009	.90329		45 42 12	9.6864	.00004	.98002	
44 49 6	4.6848	.00009	.90485		45 43 11	9.4636	.00004	.98002	
44 50 5	4.7182	.00009	.90641		45 44 10	9.2500	.00004	.98002	
44 51 4	4.7576	.00009	.90800		45 45 9	9.0455	.00004	.98002	
44 52 3	4.8012	.00009	.90961		45 46 8	8.8485	.00004	.98002	
44 53 2	4.8494	.00009	.91126		45 47 7	8.6582	.00004	.98002	
44 54 1	4.9012	.00009	.91296		45 48 6	8.4727	.00004	.98002	
44 55 0	4.9576	.00009	.91470		45 49 5	8.2909	.00004	.98002	
45 0 54	94.9091	.00000	.98337		45 50 4	19.9091	.00000	.98332	

(22)

TABLE EXP

CHI SQUARE - P(1/3), P(4/9), P(2/9) N=99

U	V	W	X2	P(A)	CUM(Exp)	U	V	W	X2	P(A)	CUM(Exp)
45	51	3	21.8864	.00000	.98335	46	46	7	15.4394	.00000	.98294
45	52	2	20.0000	.00000	.98336	46	47	6	16.9621	.00000	.98317
45	53	1	20.2500	.00000	.98337	46	48	5	18.6212	.00000	.98328
45	54	0	20.6364	.00000	.98337	46	49	4	20.4167	.00000	.98335
46	0	53	92.8330	.00000	.98337	46	50	3	22.3485	.00000	.98336
46	1	52	88.0530	.00000	.98337	46	51	2	24.4167	.00000	.98336
46	2	51	83.4394	.00000	.98337	46	52	1	26.6212	.00000	.98337
46	3	50	78.9621	.00000	.98337	46	53	0	28.9621	.00000	.98337
46	4	49	74.6212	.00000	.98337	47	0	52	90.8485	.00000	.98337
46	5	48	70.4167	.00000	.98337	47	1	51	86.1894	.00000	.98337
46	6	47	66.3485	.00000	.98337	47	2	50	81.6667	.00000	.98337
46	7	46	62.4167	.00000	.98337	47	3	49	77.2803	.00000	.98337
46	8	45	58.6212	.00000	.98337	47	4	48	73.0383	.00000	.98337
46	9	44	55.0621	.00000	.98337	47	5	47	68.9167	.00000	.98337
46	10	43	51.6394	.00000	.98337	47	6	46	64.9394	.00000	.98337
46	11	42	48.0530	.00000	.98337	47	7	45	60.9167	.00000	.98337
46	12	41	44.8030	.00000	.98337	47	8	44	57.3939	.00000	.98337
46	13	40	41.6894	.00000	.98337	47	9	43	53.8258	.00000	.98337
46	14	39	38.7121	.00000	.98337	47	10	42	50.3939	.00000	.98337
46	15	38	35.8712	.00000	.98337	47	11	41	47.0985	.00000	.98337
46	16	37	33.1667	.00000	.98337	47	12	40	43.9394	.00000	.98337
46	17	36	32.5985	.00000	.98337	47	13	39	40.9167	.00000	.98337
46	18	35	29.1667	.00000	.98337	47	14	38	38.0303	.00000	.98337
46	19	34	25.8712	.00000	.98337	47	15	37	35.2883	.00000	.98337
46	20	33	23.0621	.00000	.98337	47	16	36	32.6667	.00000	.98337
46	21	32	21.6894	.00000	.98336	47	17	35	30.1894	.00000	.98337
46	22	31	19.8030	.00000	.98336	47	18	34	27.8030	.00000	.98337
46	23	30	18.0530	.00000	.98325	47	19	33	25.4394	.00000	.98337
46	24	29	16.3494	.00000	.98311	47	20	32	23.5758	.00000	.98336
46	25	28	14.9621	.00000	.98282	47	21	31	21.6439	.00000	.98335
46	26	27	13.6212	.00001	.98229	47	22	30	19.8485	.00000	.98332
46	27	26	12.4167	.00001	.98168	47	23	29	18.1894	.00000	.98326
46	28	25	11.3485	.00003	.98081	47	24	28	16.6667	.00000	.98313
46	29	24	10.4167	.00004	.97982	47	25	27	15.2803	.00000	.98298
46	30	23	9.6212	.00007	.97854	47	26	26	14.0303	.00001	.98249
46	31	22	8.9621	.00011	.97697	47	27	25	12.9167	.00001	.98184
46	32	21	8.4394	.00015	.97607	47	28	24	11.9394	.00002	.98096
46	33	20	8.0530	.00019	.97592	47	29	23	11.0985	.00005	.97957
46	34	19	7.8030	.00022	.97558	47	30	22	10.3939	.00005	.97794
46	35	18	7.6894	.00024	.976242	47	31	21	9.8258	.00007	.97619
46	36	17	7.7121	.00024	.976266	47	32	20	9.3939	.00010	.97446
46	37	16	7.8712	.00022	.976425	47	33	19	9.0985	.00012	.97303
46	38	15	8.1667	.00018	.976688	47	34	18	8.9394	.00013	.97216
46	39	14	8.5985	.00014	.976886	47	35	17	8.9167	.00014	.97203
46	40	13	9.1667	.00010	.977338	47	36	16	9.0303	.00013	.97267
46	41	12	9.8030	.00006	.978335	47	37	15	9.2883	.00011	.97393
46	42	11	10.7121	.00001	.979819	47	38	14	9.6667	.00009	.97568
46	43	10	11.6394	.00002	.980854	47	39	13	10.1894	.00006	.97773
46	44	9	12.8030	.00001	.981756	47	40	12	10.8485	.00004	.98006
46	45	8	14.0530	.00000	.982599	47	41	11	11.6439	.00002	.98264

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TABLE EXP

CHI SQUARE - P(1/3), P(4/9), P(2/9) N=99

U	V	W	X2	P(A)	CUM(EXP)	U	V	W	X2	P(A)	CUM(EXP)
47	37	13	12.5530	.00002	.98153	50	36	13	13.8939	.00001	.98243
47	38	12	13.1212	.00002	.98198	50	37	12	14.4167	.00001	.98265
47	39	11	13.8258	.00001	.98240	50	38	11	15.0758	.00001	.98285
47	40	10	14.6667	.00001	.98273	50	39	10	15.8712	.00000	.98302
47	41	9	15.6439	.00000	.98298	50	40	9	16.8030	.00000	.98315
47	42	8	16.7576	.00000	.98314	50	41	8	17.8712	.00000	.98324
47	43	7	18.0076	.00000	.98325	50	42	7	19.0758	.00000	.98330
47	44	6	19.3939	.00000	.98331	50	43	6	20.4167	.00000	.98333
47	45	5	20.9167	.00000	.98334	50	44	5	21.8939	.00000	.98335
47	46	4	22.5758	.00000	.98336	50	45	4	23.5876	.00000	.98336
47	47	3	24.3712	.00000	.98336	50	46	3	25.2576	.00000	.98337
47	48	2	25.3030	.00000	.98337	50	47	2	27.1439	.00000	.98337
47	49	1	28.3712	.00000	.98337	50	48	1	29.1667	.00000	.98337
47	50	0	30.5758	.00000	.98337	50	49	0	31.3258	.00000	.98337
50	49	85.8939	.00000	.98337		51	0	46	44.5455	.00000	.98337
50	1	48	81.5076	.00000	.98337	51	1	47	45.2500	.00000	.98337
50	2	47	77.2576	.00000	.98337	51	2	46	46.0909	.00000	.98337
50	3	46	73.1439	.00000	.98337	51	3	45	47.0682	.00000	.98337
50	4	45	69.1667	.00000	.98337	51	4	44	48.1818	.00000	.98337
50	5	44	65.3258	.00000	.98337	51	5	43	49.4318	.00000	.98337
50	6	43	61.6212	.00000	.98337	51	6	42	50.8182	.00000	.98337
50	7	42	58.0530	.00000	.98337	51	7	41	52.3409	.00000	.98337
50	8	41	54.6212	.00000	.98337	51	8	40	54.0000	.00000	.98337
50	9	40	51.3258	.00000	.98337	51	9	39	55.7955	.00000	.98337
50	10	39	48.1667	.00000	.98337	51	10	38	47.7273	.00000	.98337
50	11	38	45.1439	.00000	.98337	51	11	37	44.7955	.00000	.98337
50	12	37	42.2576	.00000	.98337	51	12	36	42.0000	.00000	.98337
50	13	36	39.5076	.00000	.98337	51	13	35	39.3409	.00000	.98337
50	14	35	36.8939	.00000	.98337	51	14	34	36.8182	.00000	.98337
50	15	34	34.4167	.00000	.98337	51	15	33	34.4318	.00000	.98337
50	16	33	32.0758	.00000	.98337	51	16	32	32.1818	.00000	.98337
50	17	32	29.8712	.00000	.98337	51	17	31	30.0682	.00000	.98337
50	18	31	27.8030	.00000	.98337	51	18	30	28.0909	.00000	.98337
50	19	30	25.8712	.00000	.98337	51	19	29	26.2500	.00000	.98337
50	20	29	24.0758	.00000	.98336	51	20	28	24.5455	.00000	.98336
50	21	28	22.4167	.00000	.98336	51	21	27	22.9773	.00000	.98336
50	22	27	20.8939	.00000	.98334	51	22	26	21.5455	.00000	.98335
50	23	26	19.5076	.00000	.98331	51	23	25	20.2500	.00000	.98333
50	24	25	18.2576	.00000	.98326	51	24	24	19.0909	.00000	.98330
50	25	24	17.1439	.00000	.98318	51	25	23	18.0682	.00000	.98325
50	26	23	16.1667	.00000	.98307	51	26	22	17.1818	.00000	.98319
50	27	22	15.3258	.00000	.98291	51	27	21	16.4318	.00000	.98311
50	28	21	14.6212	.00001	.98271	51	28	20	15.8182	.00000	.98301
50	29	20	14.0530	.00001	.98250	51	29	19	15.3409	.00001	.98291
50	30	19	13.6212	.00001	.98229	51	30	18	15.0000	.00001	.98283
50	31	18	13.3258	.00002	.98212	51	31	17	14.7955	.00001	.98277
50	32	17	13.1667	.00002	.98202	51	32	16	14.7273	.00001	.98275
50	33	16	13.1439	.00002	.98200	51	33	15	14.7955	.00001	.98277
50	34	15	13.2576	.00002	.98208	51	34	14	15.0000	.00001	.98283
50	35	14	13.5076	.00002	.98223	51	35	13	15.3409	.00001	.98291

(25)

TABLE EXP

U	V	W	X2	P(A)	CUM(EXP)	U	V	W	X2	P(A)	CUM(EXP)
51	36	12	15.8182	.00000	.98301	52	37	10	18.5985	.00000	.98324
51	37	11	16.4318	.00000	.98311	52	38	9	19.4394	.00000	.98331
51	38	10	17.1818	.00000	.98319	52	39	8	20.4167	.00000	.98335
51	39	9	18.0682	.00000	.98325	52	40	7	21.5303	.00000	.98338
51	40	8	19.0909	.00000	.98330	52	41	6	22.7803	.00000	.98336
51	41	7	20.2500	.00000	.98333	52	42	5	24.1667	.00000	.98336
51	42	6	21.5455	.00000	.98335	52	43	4	25.6894	.00000	.98337
51	43	5	22.9773	.00000	.98336	52	44	3	27.3485	.00000	.98337
51	44	4	24.5455	.00000	.98336	52	45	2	29.1439	.00000	.98337
51	45	3	26.2500	.00000	.98337	52	46	1	31.0758	.00000	.98337
51	46	2	28.0909	.00000	.98337	52	47	0	33.1439	.00000	.98337
51	47	1	30.0682	.00000	.98337	53	0	46	42.3030	.00000	.98337
51	48	0	32.1818	.00000	.98337	53	1	45	40.1894	.00000	.98337
52	0	47	43.3485	.00000	.98337	53	2	44	38.2121	.00000	.98337
52	1	46	39.3409	.00000	.98337	53	3	43	36.3712	.00000	.98337
52	2	45	35.3409	.00000	.98337	53	4	42	34.6667	.00000	.98337
52	3	44	31.8182	.00000	.98337	53	5	41	33.0985	.00000	.98337
52	4	43	28.5909	.00000	.98337	53	6	40	31.6667	.00000	.98337
52	5	42	25.6894	.00000	.98337	53	7	39	30.3712	.00000	.98337
52	6	41	23.1667	.00000	.98337	53	8	38	29.2121	.00000	.98337
52	7	40	20.8780	.00000	.98337	53	9	37	28.1894	.00000	.98337
52	8	39	18.5303	.00000	.98337	53	10	36	27.3030	.00000	.98337
52	9	38	16.4167	.00000	.98337	53	11	35	26.5530	.00000	.98337
52	10	37	14.4394	.00000	.98337	53	12	34	25.9394	.00000	.98337
52	11	36	12.5985	.00000	.98337	53	13	33	25.4621	.00000	.98337
52	12	35	10.8939	.00000	.98337	53	14	32	25.1212	.00000	.98337
52	13	34	9.3258	.00000	.98337	53	15	31	24.9167	.00000	.98337
52	14	33	8.0530	.00000	.98337	53	16	30	24.8085	.00000	.98337
52	15	32	6.9859	.00000	.98337	53	17	29	24.8167	.00000	.98337
52	16	31	6.1439	.00000	.98337	53	18	28	24.9121	.00000	.98337
52	17	30	5.5167	.00000	.98337	53	19	27	25.0667	.00000	.98337
52	18	29	5.0000	.00000	.98337	53	20	26	25.2939	.00000	.98337
52	19	28	4.5803	.00000	.98337	53	21	25	25.5530	.00000	.98336
52	20	27	4.2500	.00000	.98337	53	22	24	25.9394	.00000	.98336
52	21	26	3.9894	.00000	.98336	53	23	23	26.4621	.00000	.98335
52	22	25	3.7803	.00000	.98336	53	24	22	27.1212	.00000	.98335
52	23	24	3.6143	.00000	.98334	53	25	21	27.9121	.00000	.98333
52	24	23	3.4859	.00000	.98333	53	26	20	28.8667	.00000	.98332
52	25	22	3.3939	.00000	.98330	53	27	19	29.9985	.00000	.98330
52	26	21	3.3485	.00000	.98325	53	28	18	31.3712	.00000	.98326
52	27	20	3.3409	.00000	.98319	53	29	17	33.0758	.00000	.98321
52	28	19	3.3712	.00000	.98311	53	30	16	35.1439	.00000	.98316
52	29	18	3.4394	.00000	.98301	53	31	15	37.5803	.00000	.98306
52	30	17	3.5303	.00000	.98312	53	32	14	40.3030	.00000	.98307
52	31	16	3.6416	.00000	.98310	53	33	13	43.3712	.00000	.98308
52	32	15	3.7803	.00000	.98311	53	34	12	46.8939	.00000	.98309
52	33	14	3.9485	.00000	.98313	53	35	11	50.8667	.00000	.98311
52	34	13	4.1667	.00000	.98316	53	36	10	55.3712	.00000	.98313
52	35	12	4.4394	.00000	.98320	53	37	9	60.4167	.00000	.98314
52	36	11	4.7939	.00000	.98324	53	38	8	66.0985	.00000	.98315

(26)

TABLE EXP

CHI SQUARE - P(1/3), P(4/9), P(2/9) N=99

U	V	W	X2	P(A)	CUM(EXP)
53	39	7	22.9167	.00000	.98336
53	40	6	24.1212	.00000	.98336
53	41	5	25.4621	.00000	.98337
53	42	4	26.9394	.00000	.98337
53	43	3	28.5530	.00000	.98337
53	44	2	30.3030	.00000	.98337
53	45	1	32.1894	.00000	.98337
53	46	0	34.2121	.00000	.98337
54	0	45	81.4091	.00000	.98337
54	1	44	77.3864	.00000	.98337
54	2	43	73.5000	.00000	.98337
54	3	42	69.7500	.00000	.98337
54	4	41	66.1364	.00000	.98337
54	5	40	62.6591	.00000	.98337
54	6	39	59.3182	.00000	.98337
54	7	38	56.1136	.00000	.98337
54	8	37	53.0455	.00000	.98337
54	9	36	50.1136	.00000	.98337
54	10	35	47.3182	.00000	.98337
54	11	34	44.6591	.00000	.98337
54	12	33	42.1364	.00000	.98337
54	13	32	39.7500	.00000	.98337
54	14	31	37.5000	.00000	.98337
54	15	30	35.3864	.00000	.98337
54	16	29	33.4091	.00000	.98337
54	17	28	31.5682	.00000	.98337
54	18	27	29.8636	.00000	.98337
54	19	26	28.2955	.00000	.98337
54	20	25	26.8636	.00000	.98337
54	21	24	25.5682	.00000	.98337
54	22	23	24.4091	.00000	.98336
54	23	22	23.3864	.00000	.98336
54	24	21	22.5000	.00000	.98336
54	25	20	21.7500	.00000	.98336
54	26	19	21.1364	.00000	.98336
54	27	18	20.6591	.00000	.98336
54	28	17	20.3182	.00000	.98333
54	29	16	20.1136	.00000	.98333
54	30	15	20.0455	.00000	.98333
54	31	14	20.1136	.00000	.98333
54	32	13	20.3182	.00000	.98333
54	33	12	20.6591	.00000	.98334
54	34	11	21.1364	.00000	.98334
54	35	10	21.7500	.00000	.98334